



**VIReC RESEARCH USER GUIDE:**  
FY2002 VHA MEDICAL SAS®  
OUTPATIENT DATASETS

**VA INFORMATION RESOURCE CENTER**  
HEALTH SERVICES RESEARCH &  
DEVELOPMENT SERVICE  
EDWARD J. HINES JR. VA HOSPITAL (151V)  
BUILDING 1, ROOM C303  
5<sup>TH</sup> AVENUE & ROOSEVELT ROAD  
P.O. BOX 5000  
HINES, IL 60141

**VIReC Research User Guide: FY2002 VHA Medical SAS® Outpatient Datasets**

Veterans Affairs Information Resource Center

Edward J. Hines, Jr. VA Hospital (151V)

Hines, IL

January 2003

# Contents

|  |            |
|--|------------|
| <b>I. Introduction .....</b>   | <b>5</b>   |
| Using the Guide .....  | 5          |
| Methods for Updating .....   | 7          |
| Acknowledgements .....   | 7          |
| Suggested Citation .....   | 8          |
| Contact Information .....  | 8          |
| <b>II. Overview of the FY2002 VHA Medical SAS Outpatient Datasets .....</b>                                    | <b>9</b>   |
| Background .....   | 9          |
| Visit Dataset .....  | 10         |
| Event Dataset .....  | 10         |
| Other Outpatient Datasets .....  | 10         |
| Dataset Closeouts .....  | 11         |
| Datasets Produced Quarterly .....  | 11         |
| Datasets Kept Open for Revision .....  | 11         |
| <b>III. FY2002 VHA Medical SAS Outpatient Datasets: Variables and Their Dataset<br/>    Locations .....</b>    | <b>13</b>  |
| <b>IV. Special Data Topics .....</b>   | <b>17</b>  |
| Scrambled vs. Real Social Security Number .....  | 17         |
| Procedure and Surgery Coding .....   | 17         |
| Veteran's Income .....   | 17         |
| Longitudinal Studies .....   | 18         |
| Data Quality Issues .....  | 18         |
| <b>V. Variable One-Page Descriptions .....</b>   | <b>21</b>  |
| <b>VI. Works Cited .....</b>   | <b>75</b>  |
| <b>Appendix A: Comprehensive Listing of the Variables in the Medical SAS Outpatient<br/>    Datasets .....</b> | <b>77</b>  |
| <b>Appendix B: Comprehensive Listing of All Historic Datasets .....</b>  | <b>85</b>  |
| <b>Appendix C: Values for Selected Variables .....</b>   | <b>91</b>  |
| <b>Appendix D: Austin Automation Center Information .....</b>  | <b>123</b> |
| Requesting Access to the Datasets .....  | 123        |
| Batch Job Service Level Categories .....   | 123        |
| JCL Example .....  | 124        |
| Other Sources of Information .....   | 124        |
| AAC Contact Information .....  | 124        |
| <b>Appendix E: Selected Bibliography .....</b>   | <b>125</b> |

(This page is intentionally left blank.)

# I. Introduction

*VIREC Research User Guide: FY2002 VHA Medical SAS<sup>®</sup>\* Outpatient Datasets* was produced by the Veterans Affairs Information Resource Center (VIREC), a national resource center of the Health Services Research and Development Service (HSR&D), U.S. Department of Veterans Affairs (VA). This edition of the guide describes the Fiscal Year (FY) 2002 Medical SAS Datasets for outpatient care in the Veterans Health Administration (VHA). VIREC issues this guide to assist health services researchers and other users of these data in understanding the availability and definitions of the stored variables within the datasets. The guide also addresses special topics, such as dataset closeouts, quality of selected variables, and issues that may affect researchers' use of VA data.

The first edition by VIREC of a research user guide to VHA outpatient care data was issued in March 2000 and described the FY1999 Medical SAS Datasets.<sup>1</sup> A companion guide to VHA inpatient care data was issued,<sup>2</sup> and updated guides and select variable frequencies have been produced.<sup>3-8</sup> The VIREC research user guides grew from the work by Martha Beattie, Ph.D., Ralph W. Swindle, Ph.D., Lynn A. Tomko, B.A., and other authors of the five-volume *Department of Veterans Affairs Database Resources Guide*,<sup>9</sup> an effort that was supported by the VA Health Services Research and Development Service through the Service Directed Research project #91-009 awarded to Ralph Swindle.

## Using the Guide

This guide is divided into the four main sections listed below. Additional documents are included as appendices.

- [\*\*Overview of the FY2002 Medical SAS Outpatient Datasets.\*\*](#) Chapter II provides a brief description of each of the current datasets including naming conventions, sort order, and observation (record) and variable counts.
- [\*\*FY2002 VHA Medical SAS Outpatient Datasets: Variables & Their Dataset Locations.\*\*](#) Chapter III is a table of all variables in the FY2002 Outpatient Datasets indicating in which datasets each variable occurs. A comprehensive listing of all historic outpatient variables is in [Appendix A](#).

---

\* SAS<sup>®</sup> is a registered trademark of the SAS Institute, Inc.

- **Special Data Topics.** Chapter IV provides information regarding special topics (e.g., dataset closeouts) and use of selected, specific variables (e.g., Scrambled Social Security Number).
- **Variable One-Page Descriptions.** Chapter V presents a one-page description for each variable in the datasets for this fiscal year. The description includes a table with the following information, when applicable.

|                          |   |
|--------------------------|---|
| Data Type:               | This indicates if the variable is numeric or character.   |
| Print Format:            | This is the name of the print format, if there is one. The print format name is from the Format Library for the file. Date variables have SAS-defined print formats.  |
| Label:                   | This is the label for the variable as it appears in the Medical SAS dataset.  |
| Datasets / Fiscal Years: | This indicates the Medical SAS Datasets and Fiscal Years where the variable occurs.   |
| VISTA Data Source:       | This is the file and field where data for the variable originate in the VA's decentralized clinical database, known as VISTA (Veterans Health Information Systems and Technology Architecture). In VISTA, files are identified by both a number and a name (e.g., "PTF [45] file"), while fields are identified by name (e.g., "Type of disposition field"). VISTA comprises many software applications which utilize more than 1,940 files that include more than 44,960 data fields. Detailed information about the VISTA applications is available at the VISTA Document Library ( <a href="http://www.va.gov/vdl">http://www.va.gov/vdl</a> ). An issue of <i>VIREC Insights</i> (Vol. 3, No. 1) on VISTA is available at the VIREC Web site ( <a href="http://www.virec.research.med.va.gov/insights.htm">http://www.virec.research.med.va.gov/insights.htm</a> ). |

Where applicable, and where space allows, a second table lists the values that the variable can assume with a description of each value. In cases where the possible values exceed the space available, this table is in [Appendix C](#). For selected variables, the reader is given a reference source to obtain the possible values and their descriptions.

- **Works Cited.** Chapter VI lists publications referred to earlier in the guide. This is in contrast to [Appendix E](#), "Selected Bibliography," which provides references for published reports of research that utilized the Medical SAS Outpatient Datasets.

## Methods for Updating

VIREC uses numerous sources of information to update this guide. Official records of changes to the Medical SAS Datasets are maintained by the Austin Automation Center (AAC) in a section of its National Patient Care Database (NPCD) Customer Web site. This audit trail, which tracks changes to the inpatient and outpatient databases and to the SAS datasets, is on the VA Intranet. (Users can request the site address from VIREC via e-mail to [virec@research.hines.med.va.gov](mailto:virec@research.hines.med.va.gov).) Notices of changes are often announced by AAC and NPCD staff on the HSRData listserv, an e-mail group that includes researchers, policy makers, and information managers. Information about HSRData is available on the VIREC Web site, <http://www.virec.research.med.va.gov>.

In preparing the guide for FY2002 data, VIREC was able to check the VISTA data source for many variables against tables being developed by the National Data Systems (NDS) division of the VHA Office of Information's Information Assurance Service. We will continue to check this information as the NDS proceeds with its work, and any changes to the information in this guide will be reflected in future editions.

Editorial changes to the guide were made by VIREC staff in response to specific user requests and in a general effort to improve the readability and usefulness of the guide. In this respect, questions submitted to the VIREC Help Desk were reviewed to identify issues that need clarification or expansion. Issues discussed on HSRData were considered as well. Finally, our own experience as users of the Medical SAS datasets also prompted us to modify content and style of the information included here.

An early draft of the guide was reviewed for accuracy and clarity by an *ad hoc* group of individuals who are data stewards, data managers, and end users. The invaluable contribution of the reviewers this year is acknowledged in the following section.

## Acknowledgements

The Veterans Affairs Information Resource Center (VIREC) is supported by Health Services Research and Development (HSR&D) Service Grant SDR 98-004.

This guide is the product of many people's efforts, experiences, and insights. The contributing authors at VIREC included Phil Colin, Denise M. Hynes, George Joseph, Linda Kok, Patricia A. Murphy, Ruth Perrin, Chris Schneiderman, and Min-Woong Sohn. April Kopp helped in editing and putting final touches to the guide, and Cody Tilson designed the cover.

Reviewers for the guide this year included the following data stewards and users whose affiliation are listed for identification purposes:

|                             |  |
|-----------------------------|--|
| Mazen Abdellatif, M.S.      | Hines VA Cooperative Studies Program Coordinating Center |
| Paul Barnett, Ph.D.         | Health Economics Resource Center                         |
| Magdalena Berger, M.P.H.    | Health Economics Resource Center                         |
| Diane Cowper, M.A.          | Rehabilitation Outcomes Research Center                  |
| Elizabeth Franchi, R.H.I.A. | Office of Information Assurance                          |
| Jenie Perry, B.S.           | Austin Automation Center                                 |
| Ciaran Phibbs, Ph.D.        | Health Economics Resource Center                         |
| John Quinn, B.S.            | Office of Information Assurance, National Data Systems   |
| Todd Wagner, Ph.D.          | Health Economics Resource Center                         |

VIREC accepts responsibility for any deficiencies in the current guide and welcomes suggestions for improving this resource to better meet the needs of research users.

## **Suggested Citation**

*VIREC Research User Guide: FY2002 VHA Medical SAS® Outpatient Datasets.* Edward J. Hines, Jr. VA Hospital, Hines, IL: Veterans Affairs Information Resource Center, January 2003.

## **Contact Information**

Denise M. Hynes, R.N., MPH, Ph.D.  
Director  
[hynes@research.hines.med.va.gov](mailto:hynes@research.hines.med.va.gov)

Min-Woong Sohn, Ph.D.  
Associate Director  
[sohn@research.hines.med.va.gov](mailto:sohn@research.hines.med.va.gov)

Philip M. Colin, A.A.S.  
Research Analyst  
[colin@research.hines.med.va.gov](mailto:colin@research.hines.med.va.gov)

Veterans Affairs Information Resource Center  
Edward Hines, Jr. VA Hospital (151V)  
Hines, IL 60141

Phone: (708) 202-2413  
Fax: (708) 202-2415



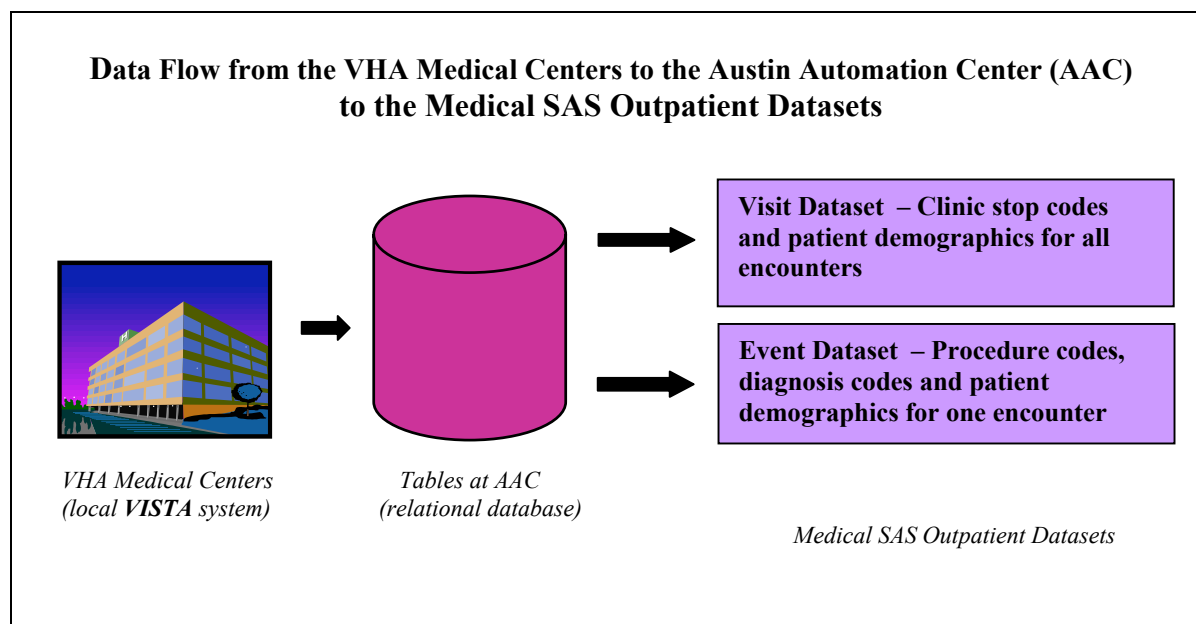
## **II. Overview of the FY2002 VHA Medical SAS Outpatient Datasets**

### **Background**

The health care utilization information for outpatient care is recorded by staff members in VA treatment facilities across the United States and Puerto Rico through use of a uniform set of coding instructions, software, and data files. The treatment facility databases that initially hold these data are known as the local VISTA (Veterans Health Information Systems and Technologies Architecture) systems. The data are electronically transferred to the Austin Automation Center (AAC) in Austin, Texas, which is the central repository for VHA national databases. The AAC staff formats and outputs these data in SAS datasets that are available to users who have appropriate access clearance. Further information about the VHA Medical SAS Datasets has been published electronically.<sup>10</sup>

The Medical SAS Outpatient Datasets is the collective term for the datasets that contain the VA's ambulatory care data. Encounter information is transmitted to the AAC nightly where it is held in a queue. Twice a month the public SAS datasets are updated using these queued data. For reimbursement purposes sites are instructed to closeout and transmit encounters for the previous month no later than the first full week of the current month. However, Austin will accept re-transmitted encounter data until the datasets are frozen. Twice a year the datasets are frozen, in April and October. The April update freezes the datasets for records between October and March. The October update freezes the dataset for records between April and October. The AAC, at its own discretion, has allowed the field to re-transmit all of the fiscal year data at the end of the fiscal year in order to maintain accurate information.

As illustrated in the following figure, there are currently two Medical SAS Outpatient Datasets produced for FY2002 that are referred to as the “Visit” and “Event” datasets.



## Visit Dataset

The Visit dataset provides information about a day's outpatient care encounters. The name of the FY2002 Medical SAS Outpatient Visit dataset is **MDPPRD.MDP.SAS.SF02**, and it contains 43,683,885 observations with 49 variables. The sort order is by the variables [SCRSSN](#) (Scrambled Social Security Number) and [VIZDAY](#) (Date of Visit). The dataset originated in FY1980. A record contains up to 15 clinic stops for the day's care. For a listing of variables contained in the dataset, see the Visit dataset directory table in this guide. For a comprehensive listing of all historic Visit dataset variable names, see [Appendix A](#).

## Event Dataset

The Event dataset provides information about each encounter (clinic stop) during a day's outpatient care, identifying the specific location of encounters with the VA station suffix as well as the parent station 3-digit code. The name of the FY2002 Medical SAS Outpatient Event dataset is **MDPPRD.MDP.SAS.SE02**, and it contains 64,477,062 observations with 82 variables. The sort order is by the variables [SCRSSN](#) (Scrambled Social Security Number), [VIZDAY](#) (Date of visit), and [CL](#) (Primary clinic stop code). The dataset originated in FY1997. There is one observation (record) per outpatient encounter, with no limit on the number of clinic stops reported. **Note: The Visit and Event datasets will not agree on clinic stop volumes.** For a listing of variables contained in this dataset, see the Event dataset directory table. For a comprehensive listing of all historic Event dataset and variable names, see the Appendices.

## Other Outpatient Datasets

**Procedure Dataset.** This dataset, which contains CPT-4<sup>11</sup> outpatient procedure information, has not been generated since FY2001. All of the variables contained in this dataset can be found in

the Event dataset. For a detailed description on this dataset, refer to previous fiscal years' resource guides.

**Diagnosis Dataset.** This dataset, which contains outpatient ICD-9-CM<sup>12</sup> diagnosis information, has not been generated since FY2001. All of the variables contained in this dataset can be found in the Event dataset. For a detailed description on this dataset, please refer to previous fiscal years' resource guides.

## **Dataset Closeouts**

Most research users of the Medical SAS Datasets utilize the datasets of fiscal year data. The annual datasets are accumulated or constructed over time, as noted below. Throughout a given fiscal year, the data in the Medical SAS Datasets change as edits, updates, and additional record entries are performed at the transmitting medical center. The policy for transmission of data states that the previous month's encounters will be completely forwarded to the AAC by the 19<sup>th</sup> of the current month. This policy, sometimes called the reimbursement closeout because of its association with cost recovery deadlines, does not mean that data are not transmitted after this period. The AAC will accept inpatient information until its fiscal year closeout on October 19. The AAC, at their own discretion in order to maintain accurate records, has allowed the field to re-submit all of the fiscal year data at the end of the fiscal year. For the research user, when to extract data will depend on the specific use of the data, but in general, researchers are advised to use the annual datasets.

## **Datasets Produced Quarterly**

Each of the datasets is produced in smaller subsets that are stored on a quarterly fiscal years basis during the current fiscal year. These datasets are in turn rolled-up into a fiscal year dataset at years end. The naming convention for these datasets is the dataset name followed by QTR $n$  (where  $n$  is the number of the fiscal quarter). For a complete listing of the Quarterly SAS dataset names, refer to [Appendix B](#).

## **Datasets Kept Open for Revision**

In FY2001, it was determined that a new set of "revised" Medical SAS datasets be created that would allow for continued updates after the traditional closeout period ends. These datasets can receive updates for approximately two years after the regular closeout period. A major factor behind this decision was to allow for complete workload capture that was traditionally lost due to late submission after closeout. The names of the "revised" set of datasets are essentially the same as the traditional ones, with the word "REVISED" added to it (i.e. MDPPRD.MDP.SAS.REVISED.PM01). For a complete listing of the "revised" SAS dataset names and the fiscal years that they cover, refer to [Appendix B](#).

(This page is intentionally left blank.)

### III. FY2002 VHA Medical SAS Outpatient Datasets: Variables and Their Dataset Locations

| Name                       | Definition  | Visit | Event | Page |
|----------------------------|---|-------|-------|------|
| <a href="#">AGE</a>        | Patient age in years at the time of visit   | X     | X     | 22   |
| <a href="#">AGOIND</a>     | Indicates whether the healthcare encounter was related to exposure to Agent Orange  | X     | X     | 23   |
| <a href="#">AGOLOC</a>     | Indicates where the Agent Orange exposure occurred  | X     | X     | 24   |
| <a href="#">AG8R</a>       | Categorical recoding of AGE (Patient age in years at the time of visit) into 8 groupings                                      | X     | X     | 25   |
| <a href="#">APPTYP</a>     | Codes for VA appointment types for scheduling outpatient encounters   |       | X     | 26   |
| <a href="#">CL</a>         | Primary clinic stop code  |       | X     | 27   |
| <a href="#">CL1-CL15</a>   | 1 <sup>st</sup> – 15 <sup>th</sup> primary clinic stop codes  | X     |       | 28   |
| <a href="#">CLC</a>        | Secondary clinic stop code  |       | X     | 29   |
| <a href="#">CPT1-CPT15</a> | Services and procedures performed by a provider recorded in Current Procedural Terminology (CPT-4) ambulatory procedure codes |       | X     | 30   |
| <a href="#">DOB</a>        | Date of patient's birth   | X     | X     | 31   |
| <a href="#">DXF2-DXF10</a> | Secondary ICD-9-CM diagnostic codes for the visit   |       | X     | 32   |
| <a href="#">DXLSF</a>      | Primary ICD-9-CM diagnosis code for this encounter  |       | X     | 33   |
| <a href="#">ELIG</a>       | Indicates veteran and non-veteran eligibility codes   | X     | X     | 34   |
| <a href="#">ENV</a>        | Indicates whether care received was due to exposure to some type of environmental hazard                                      |       | X     | 35   |
| <a href="#">HOMECNTY</a>   | County of patient's residence   | X     | X     | 36   |
| <a href="#">HOMEPSA</a>    | VHA medical center that identifies the patient's home residence   | X     | X     | 37   |
| <a href="#">HOMEVISN</a>   | Veterans Integrated Service Network (VISN) associated with the veteran's primary service area                                 | X     | X     | 38   |
| <a href="#">HOMLESS</a>    | Indicates the homeless status of the veteran  |       | X     | 39   |
| <a href="#">HOMSTATE</a>   | State associated with the patient's residence   | X     | X     | 40   |
| <a href="#">INCOME</a>     | Calculation of the patient's reported income  | X     |       | 41   |
| <a href="#">INS</a>        | Indicates the type of insurance coverage  | X     |       | 42   |
| <a href="#">LOCVIZ</a>     | Indicates the type of setting where the health encounter occurred   |       | X     | 43   |

| <b>Name</b>                             | <b>Definition</b>   | <b>Visit</b> | <b>Event</b> | <b>Page</b> |
|---|---|--------------|--------------|-------------|
| <a href="#"><u>MARITAL</u></a>          | Marital status of the patient   | X            | X            | 44          |
| <a href="#"><u>MEANS</u></a>            | Means Test Indicator Code   | X            | X            | 45          |
| <a href="#"><u>MULTI</u></a>            | Indicator that the patient had an encounter at the parent station or another community-based outpatient clinic assigned to the parent station with the same stop code as this encounter |              | X            | 46          |
| <a href="#"><u>NCODES</u></a>           | Number of CPT-4 procedure codes (CPT1–CPT15) populated within the record  |              | X            | 47          |
| <a href="#"><u>NDIAG</u></a>            | Number of ICD-9-CM diagnosis codes (DXLSF, DXF2–DXF10) populated within the record  |              | X            | 48          |
| <a href="#"><u>NODEPS</u></a>           | Number of dependents for eligible veterans  | X            |              | 49          |
| <a href="#"><u>NPROV</u></a>            | Number of provider type variables (PROV1–PROV10) populated within the record  |              | X            | 50          |
| <a href="#"><u>NPROVID</u></a>          | Number of provider identification code variables (PROVID1–PROVID10) populated within the record   |              | X            | 51          |
| <a href="#"><u>NSTOPS</u></a>           | Number of clinic stop variables (CL1–CL15) populated within the record  | X            |              | 52          |
| <a href="#"><u>NTRENC</u></a>           | Indicates whether there was treatment given for nasopharyngeal radium irradiation treatment exposure  |              | X            | 53          |
| <a href="#"><u>NTRIND</u></a>           | Indicates whether the patient claimed nasopharyngeal radium irradiation treatment during active military service  | X            |              | 54          |
| <a href="#"><u>POS</u></a>              | Military period in which the veteran served in  | X            |              | 55          |
| <a href="#"><u>POV</u></a>              | Code for the purpose of the healthcare visit  | X            | X            | 56          |
| <a href="#"><u>POW</u></a>              | Indicator of whether the patient was a prisoner of war  | X            |              | 57          |
| <a href="#"><u>POWLOC</u></a>           | Indicator of the period of service and/or location in which the veteran was a prisoner of war   | X            |              | 58          |
| <a href="#"><u>PROV1–PROV10</u></a>     | 1 <sup>st</sup> – 10 <sup>th</sup> codes for the category of provider   |              | X            | 59          |
| <a href="#"><u>PROVID1–PROVID10</u></a> | 1 <sup>st</sup> – 10 <sup>th</sup> healthcare provider identification codes associated with this event  |              | X            | 60          |
| <a href="#"><u>PS</u></a>               | Recategorization of the POS (Military period in which the veteran served in) variable   | X            |              | 61          |
| <a href="#"><u>PSEUDO</u></a>           | Pseudo-SSN indicator  | X            | X            | 62          |
| <a href="#"><u>RACE</u></a>             | Race or national origin   | X            | X            | 63          |
| <a href="#"><u>RAD</u></a>              | Exposure to Ionizing Radiation through nuclear testing or in Japan  | X            | X            | 64          |
| <a href="#"><u>RELIG</u></a>            | Religious preference  | X            |              | 65          |
| <a href="#"><u>SCCI</u></a>             | Indicator of whether the condition being treated is service-connected   |              | X            | 66          |

| <b>Name</b>                   | <b>Definition</b>  | <b>Visit</b> | <b>Event</b> | <b>Page</b> |
|-------------------------------|--|--------------|--------------|-------------|
| <a href="#"><u>SCRSSN</u></a> | Scrambled Social Security Number   | X            | X            | 67          |
| <a href="#"><u>SEX</u></a>    | Sex of patient   | X            | X            | 68          |
| <a href="#"><u>STA3N</u></a>  | Parent station identifier  | X            | X            | 69          |
| <a href="#"><u>STA5A</u></a>  | Five-digit numeric identifier of the VA facility where care was provided | X            | X            | 70          |
| <a href="#"><u>SVCPCT</u></a> | Patient's percentage (from 0 to 100) of service-connected disability     | X            | X            | 71          |
| <a href="#"><u>VISN</u></a>   | Veterans Integrated Service Network                                      | X            | X            | 72          |
| <a href="#"><u>VIZDAY</u></a> | Date of the outpatient health care encounter                             | X            | X            | 73          |
| <a href="#"><u>ZIP</u></a>    | Zip code   | X            | X            | 74          |

(This page is intentionally left blank.)



## **IV. Special Data Topics**

### **Scrambled vs. Real Social Security Number**

Beginning with FY1986, the patient identifier in the Medical SAS Datasets is an encrypted or scrambled Social Security Number (variable [SCRSSN](#)). (Prior to FY1986, the actual or real SSN was used.) [SCRSSN](#) is not a random assignment; rather, it is a consistent formula manipulation of a real SSN. That is, a given real SSN is always assigned the same [SCRSSN](#), and a patient's records can be linked across years and across the Medical SAS Datasets for various types of care. To obtain a patient's real SSN, one requires special permission to access the "cross-reference" SAS datasets that must be merged with the Medical SAS datasets of interest. These cross-reference datasets contain unique SSNs for activity for a given fiscal year. A description of the cross-reference datasets is on the National Patient Care Database (NPCD) VA Intranet Web site at <http://vaww.aac.va.gov/npcd/Default2.Asp>. The cross-reference datasets for outpatients is organized by fiscal year. Requests for access to the cross-reference datasets are made to the Information Security Officer (ISO) at a user's VA facility or, if the user is not affiliated with a VA facility, to the VHA Freedom of Information Act (FOIA) Officer (<http://www.va.gov/foia/offices.asp>).

### **Procedure and Surgery Coding**

Outpatient procedures coding utilizes the Current Procedural Terminology (CPT-4) schema developed by the American Medical Association (AMA).<sup>11</sup> This is different from inpatient diagnoses and procedures, which, since FY1980, are coded using the International Classification of Diseases Ninth Clinical Modification (ICD-9-CM). (Prior to FY1980, the ICD-8-CM coding schema was used.)<sup>12</sup>

Surgical procedures coded with CPT-4 are also collected for a national database by the National Surgical Quality Improvement Program (NSQIP). Staff nurses enter the NSQIP data using a VISTA software application that operates independently of the VISTA Surgery software package. Information about the NSQIP is available at the Web site, <http://nsqip.org/>.

### **Veteran's Income**

The VHA Medical SAS Datasets are not a definitive source of data on patients' incomes. This issue is a good reminder that the information in the VHA Medical SAS Datasets is collected for administrative, and not research, purposes. Administratively, the issue of patients' income is relevant to establishing eligibility for care for some veterans.

The variable [MEANS](#) (Means Test Indicator) might be seen as a categorical classification of incomes, but it should be examined carefully in light of the researcher's needs. For example, some veterans are eligible for mandatory care regardless of their income and, therefore, do not complete a Means Test. This group includes veterans classified as having 10% or more service-connected disability, former POWs, WWI veterans, and veterans without service-connected disability who are receiving a VA pension. When a Means Test is necessary to establish eligibility for VHA care, household income is used to classify the veteran. The income limits for eligibility categories are set each January 1, so the dollar value associated with a category ("less than ..." or "more than ...") varies by year. Information about eligibility for care is summarized at the Web site, <http://www.va.gov/elig>.

The VHA Medical SAS Datasets include a variable named [INCOME](#), which is an adjusted individual annual income. Adjustments include deductions for payments by the veteran for a wide range of medical expenses. (See the one-page description of the variable [INCOME](#).)

## **Longitudinal Studies**

Significant expansion of variables and file structure changes over the years in the Medical SAS Datasets for outpatient care present special challenges for longitudinal studies. When instituted, the Visit dataset contained only very basic utilization data and almost no patient demographic variables. As noted above, outpatient data were provided in four datasets until creation of the Event dataset in 1997 that combined procedure and surgery information for outpatients.

As noted above, prior to FY1986, there was no variable for Scrambled Social Security Number; the only patient identifiers were real Social Security Numbers. Prior to FY1997, outpatient datasets included no diagnostic information and only minimal procedural information (a small list of special procedures). Beginning with FY1997 data, all ICD-9-CM diagnoses and all CPT-4 procedures for 100% of the ambulatory encounters were mandated for capture (see [VHA Directive 96-0057](#), "Ambulatory Care Data Capture"). Once captured, these data elements were added or updated in the national datasets.

Some specific file structure changes are worth noting here. First, Visit datasets between FY1980–1990 contain about one record for every 5 visits. Therefore, programmers need to use the variable BLOWUP to get the true count of visits in FY1980-1990. Beginning with FY1997 data, the Procedure dataset was expanded allowing for the storage of 15 procedural codes per encounter. When the Diagnosis dataset was created, it contained 10 diagnostic variables per encounter, one primary and nine secondary diagnoses codes. Again, the Procedure and Diagnosis datasets were discontinued after FY2001 when all of the variables contained in them began appearing in the associated Event dataset.

## **Data Quality Issues**

The quality of the data in the VHA Medical SAS Datasets is a concern of researchers as well as VHA administrators. Organizationally, the VHA Information Assurance Service plays a central role in ensuring the quality of VA health care utilization data. On the VA Intranet, the service describes its mission as follows:

The Information Assurance Service fosters a collaborative environment to assure the integrity of patient data as well as data management for the National Data Systems, and the Meta Data Repository. (<http://vaww.ia.med.va.gov/>, accessed January 8, 2003)

Components of the service are responsible for Health Information Management (coding), National Data Systems (including the VHA Medical SAS Datasets), the National Patient Care Database (from which the VHA Medical SAS Datasets are generated), and Data Quality. Researchers interested in the policies, roles, and activities of the Information Assurance Service may want to review the Service's VA Intranet Web site regularly.

Assessments of the quality of VHA data in general have been performed by the Office of Inspector General, the Medical Care Cost Recovery program, and workgroups and committees convened for this purpose. There have been few published studies of data quality by researchers focused on ambulatory care information. Kang and colleagues compared the VHA variables for Agent Orange exposure and for Period of Service with military service records at the National Personnel Records Center and reported a 45% false negative rate for the VHA data.<sup>13</sup> That report was published more than 10 years ago. In 1998, Kashner and colleagues reported that the reliability of patient demographics, use of care, and diagnoses in the VHA inpatient data was adequate for demographics, length of stay, and selected diagnoses, but less reliable for the treating bed section.<sup>14</sup> Szeto and colleagues reported results of a study at one VA clinic in 2002 in which they found comparison of computerized administrative and clinical data with medical chart information showed good agreement for the diagnoses of interest (e.g., related to hypertension).<sup>15</sup>

Changes in the VHA environment can be expected to complement efforts by the Information Assurance Service to provide impetus for data quality in the systems that are the basis for the Medical SAS Outpatient Datasets. For example, the Balanced Budget Act passed by Congress in 1997 gave authority to the Veterans Integrated Service Networks (VISNs) to retain the reimbursement funds that may be collected by local Medical Care Cost Recovery (MCCR). Prior to this legislation, reimbursement funds were directed into a central VHA repository. The ability to retain collected amounts provides incentive for the VISNs to ensure accurate documentation of care. A second environmental support for data quality is the processing of inpatient data in an electronic medical record (EMR). VA policy, consistent with the Joint Commission of the Accreditation of Healthcare Organizations (JCAHO), permits the use of electronic media for recording the legal medical record (see [VA Manuals of Policy M-1, Part 1, Chapter 5](#)). The provider interface tool that allows for the use of EMR in VHA is the Computerized Patient Record System (CPRS). CPRS represents an integrated, comprehensive suite of clinical applications that creates an electronic medical record. CPRS site implementation, which began in 1997, was completed in January 2000 with 172 sites in production. Studies have reported<sup>14</sup> and professional assessments are consistent<sup>16,17</sup> that a CPRS improves data quality.

Individual researchers will need to assess the quality of key variables in a given study. For VIREC, studies of data validity, reliability, and positive predictive value are integral to the center's core functions and are an important component of the center's strategic plan for FY2003-2007.

(This page is intentionally left blank.)

## **V. Variable One-Page Descriptions**

(Variable description pages begin on the next page.)

Variable Name: **AGE**

Definition: Patient age in years at the time of visit

Remarks: This variable is calculated from [DOB](#) (Date of patient's birth) and [VIZDAY](#) (Date of the outpatient health care encounter). Note that prior to FY1996, year of birth rather than date of birth was used for **AGE** calculation.

|                         |   |
|-------------------------|---|
| Data Type               | Numeric   |
| Print Format            | None  |
| Label                   | AGE   |
| Datasets / Fiscal Years | Visit / 1980 – To Date<br>Event / 1997 – To Date  |
| VISTA Data Source       | Patient (2) file, DATE OF BIRTH field<br>Outpatient (409.68) Encounter file, ADMIT DATE field |

Variable Name: **AGOIND**

Definition: Indicates whether the healthcare encounter was related to exposure to Agent Orange

Remarks: For frequency counts of the values for this variable, see the accompanying *VIREC Research User Guide: Select Variable Frequencies From The FY2002 VHA Medical SAS Datasets*.

|                         |  |
|-------------------------|--|
| Data Type               | Character  |
| Print Format            | \$XXYN.  |
| Label                   | AGENT ORANGE INDICATOR                           |
| Datasets / Fiscal Years | Visit / 2002 – To Date<br>Event / 2002 – To Date |
| VISTA Data Source       | Patient (2) file, EXPOSED TO AGENT ORANGE field  |

**AGOIND** can assume the following values:

| Value | Description                 |
|-------|-----------------------------|
| 0     | Not exposed to Agent Orange |
| 1     | Exposed to Agent Orange     |

Variable Name: **AGOLOC**

Definition: Indicates where the Agent Orange exposure occurred

Remarks: For frequency counts of the values for this variable, see the accompanying *VIREC Research User Guide: Select Variable Frequencies From The FY2002 VHA Medical SAS Datasets*.

|                         |   |
|-------------------------|---|
| Data Type               | Character   |
| Print Format            | \$AGOLOC.   |
| Label                   | AGENT ORANGE LOCATION                                     |
| Datasets / Fiscal Years | Visit / 2002 – To Date<br>Event / 2002 – To Date          |
| VISTA Data Source       | Patient (2) file, AGENT ORANGE EXPOSURE<br>LOCATION field |

**AGOLOC** can assume the following values:

| Value | Description               |
|-------|---------------------------|
| K     | Korean Demilitarized Zone |
| U     | Unknown                   |
| V     | Vietnam Era               |



Variable Name: **AG8R**

Definition: Categorical recoding of [AGE](#) (Patient age in years at the time of visit) into 8 groupings

Remarks: Despite what the name implies, there are actually nine categories due to the “95+” category which was added in FY1997. For frequency counts of the values for this variable, see the accompanying *VIReC Research User Guide: Select Variable Frequencies From The FY2002 VHA Medical SAS Datasets*.

|                         |   |
|-------------------------|---|
| Data Type               | Numeric   |
| Print Format            | AG9RL.  |
| Label                   | None  |
| Datasets / Fiscal Years | Visit / 1980 – To Date<br>Event / 1997 – To Date  |
| VISTA Data Source       | Patient (2) file, DATE OF BIRTH field<br>Outpatient (409.68) Encounter file, ADMIT DATE field |

**AG8R** can assume the following values:

| Value | Description            |
|-------|------------------------|
| 1     | Less than 25 years old |
| 2     | 25 – 34 years old      |
| 3     | 35 – 44 years old      |
| 4     | 45 – 54 years old      |
| 5     | 55 – 64 years old      |
| 6     | 65 – 74 years old      |
| 7     | 75 – 84 years old      |
| 8     | 85 – 94 years old      |
| 9     | 95+ years old          |

Variable Name:       **APPTYP**

Definition:           Codes for VA appointment types for scheduling outpatient encounters

Remarks:            Appointment type relates to the eligibility under which the patient is seen.

|                         |  |
|-------------------------|--|
| Data Type               | Character  |
| Print Format            | \$XXAPPT.  |
| Label                   | APPOINTMENT TYPE CODE                            |
| Datasets / Fiscal Years | Visit / 1997 – To Date<br>Event / 1997 – To Date |
| VISTA Data Source       | Outpatient (409.68) file, ADMISSION TYPE field   |

**APPTYP** can assume the following values:

| Value | Description            |
|-------|------------------------|
| 01    | Compensation & Pension |
| 02    | Class II dental        |
| 03    | Organ donors           |
| 04    | Employee               |
| 05    | Prima facia            |
| 06    | Research               |
| 07    | Collateral of Veteran  |
| 08    | Sharing agreement      |
| 09    | Regular                |

Variable Name: **CL**

Definition: Primary clinic stop code

Remarks: This represents the first three characters of the 6-character Decision Support System (DSS) Identifier VHA uses to characterize ambulatory care clinics. The last three characters of the DSS Identifier are captured in the [CLC](#) (Secondary clinic stop code) variable in the Event dataset. The DSS Identifiers are used to identify the production units or the revenue centers for outpatient care. For more information, see the [VHA Directive 2002-041](#). CL can assume the values shown in [Appendix C](#) on page 92. For frequency counts of the values for this variable, see the accompanying *VIReC Research User Guide: Select Variable Frequencies From The FY2002 VHA Medical SAS Datasets*.

|                         |   |
|-------------------------|---|
| Data Type               | Numeric   |
| Print Format            | YCLINIC.  |
| Label                   | PRIMARY CLINIC STOP   |
| Datasets / Fiscal Years | Event / 1997 – To Date  |
| VISTA Data Source       | Outpatient Encounter (409.68) file, CLINIC STOP CODE field (reference file is CLINIC STOP (40.7)) |

Variable Name: **CL1 – CL15**

Definition: 1<sup>st</sup> – 15<sup>th</sup> primary clinic stop codes

Remarks: These variables in the Visit dataset contain the same values captured in the [CL](#) (Primary clinic stop code) variable in the Event dataset. Up to 15 clinic stops are recorded per visit. Note that the Visit dataset does not contain secondary stop codes. **CL1 – CL15** can assume the values of [CL](#) shown in [Appendix C](#) on page 92. For frequency counts of the values for this variable, see the accompanying *VIREC Research User Guide: Select Variable Frequencies From The FY2002 VHA Medical SAS Datasets*.

|                         |  |
|-------------------------|--|
| Data Type               | Numeric  |
| Print Format            | YCLINIC.   |
| Label                   | CLINIC STOP NUMBER 1–15  |
| Datasets / Fiscal Years | Visit / 1980 – To Date   |
| VISTA Data Source       | Outpatient Encounter (409.68) file, STOP CODE field (reference file is CLINIC STOP (40.7)) |

Variable Name: **CLC**

Definition: Secondary clinic stop code

Remarks: This represents the last three characters of the Decision Support System (DSS) Identifier VHA uses to characterize ambulatory care clinics. The first three characters of the DSS Identifier are captured in the [CL](#) (Primary clinic stop code) variable found in the Event dataset. The secondary stop code serves as a modifier to further define the primary work group, and can represent (1) the type of services provided, (2) the type of provider or team, and (3) a specially funded program. For more information, users are referred to the [VHA Directive 2002-041](#). **CLC** can assume the values of shown in [Appendix C](#) on page 92.

|                         |   |
|-------------------------|---|
| Data Type               | Numeric   |
| Print Format            | YCLINIC.  |
| Label                   | CREDIT CLINIC STOP  |
| Datasets / Fiscal Years | Event / 1997 – To Date  |
| VISTA Data Source       | Outpatient Encounter (409.68) file, last 3 digits of STOP CODE field (reference file is CLINIC STOP (40.7)) |

Variable Name: **CPT1 – CPT15**

Definition: Services and procedures performed by a provider recorded in Current Procedural Terminology (CPT–4) ambulatory procedure codes

Remarks: These codes refer to descriptive terms for reporting medical services and procedures performed by a provider for medical, surgical, and diagnostic procedures. Until FY1997, only five codes (CPT1–CPT5) were collected.

|                         |  |
|-------------------------|--|
| Data Type               | Character                              |
| Print Format            | None                                   |
| Label                   | CPT CODES 1–15                         |
| Datasets / Fiscal Years | Event / 1997 – To Date                 |
| VISTA Data Source       | File 90000010.18, PROCEDURE CODE field |

Variable Name: **DOB**

Definition: Date of patient's birth

Remarks: This variable was added in FY1997, even though it has always been a required field in VISTA.

|                         |  |
|-------------------------|--|
| Data Type               | Numeric (SAS Date)                               |
| Print Format            | DATE9. (DDMMMYYYY)                               |
| Label                   | DATE OF BIRTH                                    |
| Datasets / Fiscal Years | Visit / 1997 – To Date<br>Event / 1998 – To Date |
| VISTA Data Source       | Patient (2) file, DATE OF BIRTH field            |

Variable Name: **DXF2–DXF10**

Definition: Secondary ICD-9-CM diagnostic codes for the visit

Remarks: Most providers are documenting only the primary reason for the clinic encounter. Despite what the variable label suggests, the values for these variables are 5 characters wide and do not have an embedded dot after the first three digits.

|                         |  |
|-------------------------|--|
| Data Type               | Character  |
| Print Format            | None   |
| Label                   | 2 <sup>ND</sup> –10 <sup>TH</sup> DX – FULL STAY (ICD9) (6-DIGIT)  |
| Datasets / Fiscal Years | Event / 1997 – To Date   |
| VISTA Data Source       | Outpatient Encounter (409.43), fields DIAGNOSIS CODE and DIAGNOSIS PRIORITY, reference file ICD DIAGNOSIS (80) |



Variable Name: **DXLSF**

Definition: Primary ICD-9-CM diagnosis code for this encounter

Remarks: Diagnoses were not collected for encounters until FY1997. Despite what the variable label suggests, the values for these variables are 5-characters wide and do not have an embedded decimal after the first three digits.

|                         |  |
|-------------------------|--|
| Data Type               | Character  |
| Print Format            | None   |
| Label                   | PRIMARY DX – FULL STAY (ICD9) (6-DIGIT)  |
| Datasets / Fiscal Years | Event / 1997 – To Date   |
| VISTA Data Source       | Outpatient Encounter (409.43), fields DIAGNOSIS CODE and DIAGNOSIS PRIORITY, reference file ICD DIAGNOSIS (80) |

Variable Name: **ELIG**

Definition: Indicates veteran and non-veteran eligibility codes

Remarks: Veteran eligibility categories are based on the degree of service-connected disability and degree of impairment. Non-veteran eligibility codes give the non-veteran service category. For more information on the eligibility categories, see <http://www.va.gov/elig/Eligibility.htm>. For frequency counts of the values for this variable, see the accompanying *VIReC Research User Guide: Select Variable Frequencies From The FY2002 VHA Medical SAS Datasets*.

|                         |  |
|-------------------------|--|
| Data Type               | Numeric  |
| Print Format            | YELIG.   |
| Label                   | ELIGIBILITY CODE   |
| Datasets / Fiscal Years | Visit / 1980 – To Date,<br>Event / 1997 – To Date  |
| VISTA Data Source       | Outpatient Encounter (409.68) file, ELIGIBILITY<br>CODE field, reference file ELIGIBILITY (8) CODE |

**ELIG** can assume the following values:

| Value | Description                              |
|-------|--|
| -1    | Purple Heart                             |
| 0     | Service-connected 0%                     |
| 1     | Service-connected 50% +                  |
| 2     | Aid and attendance - housebound          |
| 3     | Service connected 40%                    |
| 4     | Not service-connected, pension           |
| 5     | Not service connected                    |
| 6     | Domiciliary patient                      |
| 7     | Service-connected 30%                    |
| 8     | Service-connected 20%                    |
| 9     | Service-connected 10%                    |
| 10    | Catastrophically disabled                |
| 11    | CHAMPVA                                  |
| 12    | Collateral (pt. associated with veteran) |
| 13    | Employee                                 |
| 14    | Other federal                            |
| 15    | Allied veteran                           |
| 16    | Humanitarian (non-vet emergency)         |
| 17    | Sharing                                  |
| 18    | Reimbursable Insurance                   |
| 19    | TRICARE / CHAMPUS                        |

Variable Name: **ENV**

Definition: Indicates whether care received was due to exposure to some type of environmental hazard

Remarks:

|                         |   |
|-------------------------|---|
| Data Type               | Character   |
| Print Format            | None  |
| Label                   | ENVIRONMENTAL INDICATOR   |
| Datasets / Fiscal Years | Event / 1997 – To Date  |
| VISTA Data Source       | Derived from Outpatient Classification, (409.42) file, OUTPATIENT CLASSIFICATION TYPE field |

**ENV** can assume the following values:

| Value | Description |
|-------|-------------|
| 1     | Yes         |
| 2     | No          |

Variable Name: **HOMECONTY**

Definition: County of patient's residence

Remarks: This variable is based on the Federal Information Processing Standards (FIPS) code. It contains state code in the first two columns and county code, within the state, in the last three columns. State and county codes are available from the Census Bureau. This is the state county (or equivalent) for the patient's home residence. If the patient resides in a domiciliary, that is considered the permanent residence for coding.

|                         |                           |
|-------------------------|---------------------------|
| Data Type               | Numeric                   |
| Print Format            | COUNTYL.                  |
| Label                   | COUNTY OF RESIDENCE       |
| Datasets / Fiscal Years | Main / 1970 – To Date     |
| VISTA Data Source       | Reference file: STATE (5) |

Variable Name: **HOMEPSA**

Definition: VHA medical center that identifies the patient's home residence

Remarks: This variable is considered antiquated, and it should not be used. Rather, it has been recommended that primary service area be identified with the preferred facility indicator in the Enrollment Database (see VISN Support Service Center Web site on the VHA Intranet, <http://klfmenu.med.va.gov>) and market areas be identified using the Planning System Support Group's Distributed Population Planning Base model (see PSSG Web site on the VHA Intranet, <http://vaww.pssg.med.va.gov/>). **HOMEPSA** can assume the values of [STA3N](#), which can be found in [Appendix C](#) on page 120.

|                         |   |
|-------------------------|---|
| Data Type               | Numeric   |
| Print Format            | STA3NL.   |
| Label                   | HOME PRIM. SVC AREA                               |
| Datasets / Fiscal Years | Main / 1980 – To Date                             |
| VISTA Data Source       | Station Number (389.9) file, STATION NUMBER field |

Variable Name: **HOMEVISN**

Definition: Veterans Integrated Service Network (VISN) associated with the veteran's primary service area

Remarks: **HOMEVISN** assumes the values of [VISN](#). For frequency counts of the values for this variable, see the accompanying *VIReC Research User Guide: Select Variable Frequencies From The FY2002 VHA Medical SAS Datasets*.

|                         |                       |
|-------------------------|-----------------------|
| Data Type               | Numeric               |
| Print Format            | None                  |
| Label                   | VISN OF RESIDENCE     |
| Datasets / Fiscal Years | Main / 1995 – To Date |
| VISTA Data Source       | Not applicable        |

Variable Name: **HOMLESS**

Definition: Indicates the homeless status of the veteran

Remarks: This variable is assigned through social work service.

|                         |   |
|-------------------------|---|
| Data Type               | Character   |
| Print Format            | \$XXYN.   |
| Label                   | HOMELESS CODE   |
| Datasets / Fiscal Years | Event / 1997 – To Date                                |
| VISTA Data Source       | Social Work Case (650) file, HOMELESS INDICATOR field |

**HOMLESS** can assume the following values:

| Value | Description |
|-------|-------------|
| 1     | Yes         |
| 2     | No          |

Variable Name: **HOMSTATE**

Definition: State associated with the patient's residence

Remarks: **HOMSTATE** can assume the values shown in [Appendix C](#) on page 99.  
For frequency counts of the values for this variable, see the accompanying  
*VIREC Research User Guide: Select Variable Frequencies From The  
FY2002 VHA Medical SAS Datasets.*

|                         |                               |
|-------------------------|-------------------------------|
| Data Type               | Numeric                       |
| Print Format            | STATEL.                       |
| Label                   | STATE OF RESIDENCE            |
| Datasets / Fiscal Years | Main / 1970 – To Date         |
| VISTA Data Source       | Patient (2) file, STATE field |



Variable Name: **INCOME**

Definition: Calculation of the patient's reported income

Remarks: **INCOME** is a calculation of all reported income minus any deductions for medical expenses. Medical expenses are those actually paid for by the eligible veteran and include fees of physicians, dentists, and other providers of health services; hospital and nursing home fees; medical insurance premiums (including the Medicare premium); drugs and medicines; eyeglasses; any other expenses that are reasonable related to medical care. [Current Policy](#) states that admission data will not be transmitted for patients without a Means Test on record.

Individual income is part of the household income on which the means test is based and include Social Security (except disability), U.S. Civil Service, U.S. Railroad Retirement, Military Retirement, Other Retirement monies, Unemployment Compensation, Employment Income, Interest, Dividends & Annuities, Workers Comp, or Black Lung. These values may differ from the annual means test that includes income from other family members.

|                         |                                   |
|-------------------------|-----------------------------------|
| Data Type               | Numeric                           |
| Print Format            | COMMA6.                           |
| Label                   | INCOME                            |
| Datasets / Fiscal Years | Main / 1992 – To Date             |
| VISTA Data Source       | Individual Annual Income (408.21) |

Variable Name: **INS**

Definition: Indicates the type of insurance coverage

Remarks: This can also be used to identify veterans without insurance coverage. The VISTA database holds more than one active record for insurance coverage. At Austin, the presentation of a single value is not in agreement with this and should be considered neither complete nor accurate. For frequency counts of the values for this variable, see the accompanying *VIREC Research User Guide: Select Variable Frequencies From The FY2002 VHA Medical SAS Datasets*.

|                         |                                     |
|-------------------------|-------------------------------------|
| Data Type               | Character                           |
| Print Format            | \$INSUR.                            |
| Label                   | INSURANCE COVERAGE                  |
| Datasets / Fiscal Years | Visit / 1997 – To Date              |
| VISTA Data Source       | File 355.1, TYPE OF INSURANCE field |

**INS** can assume the following values:

| Value | Description           |
|-------|-----------------------|
| 0     | No insurance          |
| 1     | Major medical         |
| 2     | Dental                |
| 3     | HMO                   |
| 4     | PPO                   |
| 5     | Medicare              |
| 6     | Medicaid              |
| 7     | CHAMPUS               |
| 8     | Workman's comp        |
| 9     | Indemnity             |
| 10    | Prescription          |
| 11    | Medicare supplemental |
| 12    | All other             |

Variable Name:       **LOCVIZ**

Definition:           Indicates the type of setting where the health encounter occurred

Remarks:

|                         |  |
|-------------------------|--|
| Data Type               | Numeric  |
| Print Format            | \$XLOCVIZ.   |
| Label                   | LOCATION OF VISIT                                    |
| Datasets / Fiscal Years | Event / 1997 – To Date                               |
| VISTA Data Source       | HOSPITAL LOCATION field of the Visit (9010110) file) |

**LOCVIZ** can assume the following values:

| Value | Description  |
|-------|--|
| 1     | Staff (Regular clinic visit)   |
| 2     | Fee (Care by non-VA staff)   |
| 3     | VA + Fee (Both provide care during the visit)                        |
| 4     | Ward (When exam was performed in an area not designated as a clinic) |
| 5     | Home-Based Health Care   |
| 6     | Away from facility, other than patient residence                     |

Variable Name: **MARITAL**

Definition: Marital status of the patient

Remarks: Marital status is elicited from each patient when he or she first applies for medical care. Outpatient encounters that are recorded by hand may update this information. We found that ambulatory care staffs do make changes to the patient record regarding this variable. In a small comparison between the AAC data and a patient survey, we found an 82.7% agreement.<sup>18</sup> For frequency counts of the values for this variable, see the accompanying *VIREC Research User Guide: Select Variable Frequencies From The FY2002 VHA Medical SAS Datasets*.

|                         |  |
|-------------------------|--|
| Data Type               | Character  |
| Print Format            | \$MARITAL.                                       |
| Label                   | MARITAL STATUS                                   |
| Datasets / Fiscal Years | Visit / 1997 – To Date<br>Event / 1998 – To Date |
| VISTA Data Source       | Patient (2) file, MARITAL STATUS field           |

**MARITAL** can assume the following values:

| Value | Description   |
|-------|---------------|
| D     | Divorced      |
| M     | Married       |
| N     | Never Married |
| S     | Separated     |
| U     | Unknown       |
| W     | Widowed       |

Variable Name: **MEANS**

Definition: Means Test Indicator Code

Remarks: The Means Test Indicator is used in determining a patient's eligibility to receive care. Based on veteran status and percent service-connected eligibility, the assigned value indicates the necessity of a means test. Veterans classified as having 10 percent or more service-connected disability, former POWs, WWI veterans, and veterans without service-connected disability who are receiving a VA pension is classified for mandatory care. They do not have to complete a Means Test. All other veteran patients (namely, the non-service-connected veterans) are required to complete an annual financial Means Test to determine a financial status against the VA thresholds that are established January 1<sup>st</sup> of each year. For frequency counts of the values for this variable, see the accompanying *VIREC Research User Guide: Select Variable Frequencies From The FY2002 VHA Medical SAS Datasets*.

|                         |  |
|-------------------------|--|
| Data Type               | Character  |
| Print Format            | \$MEANSL.  |
| Label                   | MEANS TEST INDICATOR                             |
| Datasets / Fiscal Years | Visit / 1987 – To Date<br>Event / 1997 – To Date |
| VISTA Data Source       | File 408.31, MEANS TEST INDICATOR field          |

**MEANS** can assume the following values:

| Value | Description                                      |
|-------|--|
| AN    | Category A, not service connected                |
| AS    | Category A, service connected / special category |
| C     | Category C                                       |
| N     | Non-veteran                                      |
| X     | Not applicable                                   |

Variable Name: **MULTI**

Definition: Indicator that the patient visited a parent station and a substation on the same day

Remarks: The parent station identifier ([STA3N](#)) and the substation identifier ([STA5A](#)) must be different in order for this variable to have an “M” value. For example, a visit to Parent Station 589 (Kansas City) and Substation 589A7 (Wichita) on the same day would turn the **MULTI** indicator value to “M”.

|                         |                                     |
|-------------------------|-------------------------------------|
| Data Type               | Character                           |
| Print Format            | \$MULTI.                            |
| Label                   | MULTIPLE / SINGLE STATION INDICATOR |
| Datasets / Fiscal Years | Event / 1997 – To Date              |
| VISTA Data Source       | Not applicable                      |

**MULTI** can assume the following values:

| Value | Description      |
|-------|------------------|
| M     | Multiple station |
| S     | Single station   |

Variable Name: **NCODES**

Definition: Number of CPT-4 procedure codes ([CPT1-CPT15](#)) populated within the record

Remarks: Up to 15 CPT-4 procedure codes can be populated per record (SAS observation).

|                         |                             |
|-------------------------|-----------------------------|
| Data Type               | Numeric                     |
| Print Format            | None                        |
| Label                   | NUMBER OF CPTS THIS SEGMENT |
| Datasets / Fiscal Years | Event / 1998 – To Date      |
| VISTA Data Source       | Not applicable              |

Variable Name: **NDIAG**

Definition: Number of ICD-9-CM diagnosis codes ([DXLSF](#), [DXF2–DXF10](#)) populated within the record

Remarks: Up to ten ICD-9-CM diagnoses codes can be populated per record (SAS observation).

|                         |                        |
|-------------------------|------------------------|
| Data Type               | Numeric                |
| Print Format            | None                   |
| Label                   | NUMBER OF DIAG CODES   |
| Datasets / Fiscal Years | Event / 1997 – To Date |
| VISTA Data Source       | Not applicable         |



Variable Name: **NODEPS**

Definition: Number of dependents for eligible veterans

Remarks: One of the reasons for capturing this data element is that it is a factor in determining the Means Test threshold.

|                         |   |
|-------------------------|---|
| Data Type               | Character   |
| Print Format            | None  |
| Label                   | NO. OF DEPENDENTS   |
| Datasets / Fiscal Years | Visit / 1988 – To Date                                      |
| VISTA Data Source       | ANNUAL MEANS (408.31) TEST file, NUMBER OF DEPENDENTS field |

Variable Name:       **NPROV**

Definition:           Number of provider type variables ([PROV1–PROV10](#)) populated within  
the record

Remarks:

|                         |                             |
|-------------------------|-----------------------------|
| Data Type               | Numeric                     |
| Print Format            | None                        |
| Label                   | NUMBER OF PROV THIS SEGMENT |
| Datasets / Fiscal Years | Event / 1997 – To Date      |
| VISTA Data Source       | Not applicable              |

Variable Name: **NPROVID**

Definition: Number of provider identification code variables ([PROVID1–PROVID10](#)) populated within the record

Remarks:

|                         |                                 |
|-------------------------|---------------------------------|
| Data Type               | Numeric                         |
| Print Format            | None                            |
| Label                   | NUMBER OF PROV IDS THIS SEGMENT |
| Datasets / Fiscal Years | Event / 1997 – To Date          |
| VISTA Data Source       | Not applicable                  |

Variable Name: **NSTOPS**

Definition: Number of clinic stop variables ([CL1-CL15](#)) populated within the record

Remarks: Data are transmitted as encounters from the VISTA Outpatient Encounter (409.68) file. This variable is calculated at the AAC receiving end based on clinic stop, date and station. A problem has been noted for Community-Based Outpatient Clinics (CBOCs) where patients with encounters at the parent station and at the CBOC with the same stop code are losing records. For frequency counts of the values for this variable, see the accompanying *VIReC Research User Guide: Select Variable Frequencies From The FY2002 VHA Medical SAS Datasets*.

|                         |                        |
|-------------------------|------------------------|
| Data Type               | Numeric                |
| Print Format            | None                   |
| Label                   | NUMBER CLINIC STOPS    |
| Datasets / Fiscal Years | Visit / 1980 – To Date |
| VISTA Data Source       | Not applicable         |

Variable Name: **NTRENC**

Definition: Indicates whether there was treatment given for nasopharyngeal radium irradiation treatment exposure

Remarks: This variable was added to record eligibility for treatment of cancer of the head or neck associated with a veteran's receipt of nasopharyngeal radium irradiation treatments during active military, naval, or air service. (See [VHA Directive 1301](#), "Ionizing Radiation Registry Program.")

|                         |   |
|-------------------------|---|
| Data Type               | Character   |
| Print Format            | \$NTRENC.   |
| Label                   | NOSE THROAT RADIUM TRMT IND   |
| Datasets / Fiscal Years | Event / 2002 – To Date  |
| VISTA Data Source       | Derived from Outpatient (409.42) file, OUTPATIENT CLASSIFICATION TYPE and VALUE fields. |

**NTRENC** can assume the following values:

| Value   | Description  |
|---------|--|
| 0       | This health encounter not related to nose throat radium treatments |
| 1       | This health encounter related to nose throat radium treatments     |
| (Other) | Does not claim nose throat radium treatments                       |

Variable Name: **NTRIND**

Definition: Indicates whether the patient claimed nasopharyngeal radium irradiation treatment during active military service

Remarks: This variable was added to record eligibility for treatment of cancer of the head or neck associated with a veteran's receipt of nasopharyngeal radium irradiation treatments during active military, naval, or air service. (See [VHA Directive 1301](#), "Ionizing Radiation Registry Program.") For frequency counts of the values for this variable, see the accompanying *VIREC Research User Guide: Select Variable Frequencies From The FY2002 VHA Medical SAS Datasets*.

|                         |   |
|-------------------------|---|
| Data Type               | Character   |
| Print Format            | \$XXYN.   |
| Label                   | CLAIMED NOSE THROAT RADIUM EXP  |
| Datasets / Fiscal Years | Visit / 2002 – To Date  |
| VISTA Data Source       | Derived from Outpatient (409.42) file, OUTPATIENT CLASSIFICATION TYPE and VALUE fields. |

**NTRIND** can assume the following values:

| Value | Description   |
|-------|---|
| 0     | No claim of nasopharyngeal radium irradiation treatment |
| 1     | Claim of nasopharyngeal radium irradiation treatment    |

Variable Name: **POS**

Definition: Military period in which the veteran served in

Remarks: This variable is related to the authority under which a patient is eligible for care. This variable is a mixture of type of service (Army, Navy, etc.) if active currently, period of service (Spanish-American War to Desert Storm) if a veteran, and other codes such as workers comp, emergency, CHAMPUS, etc., which are largely for non-veterans. The latest wartime period of service is coded if more than one applies, unless patient is service connected for a condition incurred in a prior war. **POS** can assume the values found in [Appendix C](#) on page 102. For frequency counts of the values for this variable, see the accompanying *VIReC Research User Guide: Select Variable Frequencies From The FY2002 VHA Medical SAS Datasets*.

|                         |   |
|-------------------------|---|
| Data Type               | Character                                 |
| Print Format            | \$XXPDSEV                                 |
| Label                   | PERIOD OF SERVICE                         |
| Datasets / Fiscal Years | Visit / 1992 – To Date                    |
| VISTA Data Source       | Patient (2) file, PERIOD OF SERVICE field |

Variable Name: **POV**

Definition: Code for the purpose of the healthcare visit

Remarks: The code with the lowest applicable number is used. For frequency counts of the values for this variable, see the accompanying *VIREC Research User Guide: Select Variable Frequencies From The FY2002 VHA Medical SAS Datasets*.

|                         |  |
|-------------------------|--|
| Data Type               | Numeric  |
| Print Format            | \$XXPOV.   |
| Label                   | PURPOSE OF VISIT                                 |
| Datasets / Fiscal Years | Visit / 1985 – To Date<br>Event / 1997 – To Date |
| VISTA Data Source       | File 2.98, PURPOSE OF VISIT field                |

**POV** can assume the following values:

| Value | Description  |
|-------|--|
| 1     | Physical examination for compensation and pension eligibility                              |
| 2     | Physical examination for establishing eligibility for VA health benefits (VA Form 10-10EZ) |
| 3     | Scheduled appointment  |
| 4     | Unscheduled appointment  |



Variable Name: **POW**

Definition: Indicator of whether the patient was a prisoner of war

Remarks: This field is initially entered through patient self-report, which may later be verified through the patient's military service record. The Medical SAS Inpatient Main dataset also contains POW (Prisoner of War status with name of war and location), but it is coded to indicate the name of the war and location. For frequency counts of the values for this variable, see the accompanying *VIREC Research User Guide: Select Variable Frequencies From The FY2002 VHA Medical SAS Datasets*.

|                         |  |
|-------------------------|--|
| Data Type               | Character                                    |
| Print Format            | \$XXPOW                                      |
| Label                   | PRISONER OF WAR STATUS                       |
| Datasets / Fiscal Years | Visit / 1985 – To Date                       |
| VISTA Data Source       | Patient (2) file, POW STATUS INDICATED field |

**POW** can assume the following values:

| Value | Description           |
|-------|-----------------------|
| U     | Unknown               |
| 0     | Prisoner of war       |
| 1     | Not a prisoner of war |

Variable Name: **POWLOC**

Definition: Indicator of the period of service and/or location in which the veteran was a prisoner of war

Remarks: For frequency counts of the values for this variable, see the accompanying *VIREC Research User Guide: Select Variable Frequencies From The FY2002 VHA Medical SAS Datasets*.

|                         |  |
|-------------------------|--|
| Data Type               | Character  |
| Print Format            | \$POWLOC.  |
| Label                   | PRISONER OF WAR LOCATION                         |
| Datasets / Fiscal Years | Visit / 2001 – To Date                           |
| VISTA Data Source       | Patient (2) file, PRISONER OF WAR LOCATION field |

**POWLOC** can assume the following values:

| Value | Description           |
|-------|-----------------------|
| A     | Persian Gulf War      |
| B     | Yugoslavia            |
| 4     | World War I           |
| 5     | World War II, Europe  |
| 6     | World War II, Pacific |
| 7     | Korean War            |
| 8     | Vietnam Era           |
| 9     | Other                 |

Variable Name: **PROV1 – PROV10**

Definition: 1<sup>st</sup> – 10<sup>th</sup> codes for the category of provider

Remarks: The categories are defined by the Center for Medicare and Medicaid Services (CMS) and are used to categorize the area of care associated with this visit. **PROV1 – PROV10** can assume the values shown in [Appendix C](#) on page 103.

|                         |  |
|-------------------------|--|
| Data Type               | Numeric  |
| Print Format            | XXPROV.  |
| Label                   | PROVIDER TYPE 1 – 10   |
| Datasets / Fiscal Years | Event / 1997 – To Date   |
| VISTA Data Source       | Outpatient Provider (409.44) file, PROVIDER TYPE CODE field, reference file, PERSON (8932.1) CLASS |

Variable Name:       **PROVID1 – PROVID10**

Definition:           1<sup>st</sup> – 10<sup>th</sup> healthcare provider identification codes associated with this event

Remarks:            This is a concatenation of the 3-digit [STA3N](#) (Parent station identifier) variable and the provider ID code ([PROV1 – PROV10](#)).

|                         |   |
|-------------------------|---|
| Data Type               | Character                                     |
| Print Format            | None  |
| Label                   | PROVIDER ID 1 – 10                            |
| Datasets / Fiscal Years | Event / 1997 – To Date                        |
| VISTA Data Source       | New Person (200) File, ROLE INSTANCE ID field |

Variable Name: **PS**

Definition: Recategorization of the **POS** (Military period in which the veteran served in) variable

Remarks: The value is related to the authority under which a patient is eligible for care. This variable is irrespective of type of service (Army, Navy, etc.) and strictly related to date values. The latest wartime period of service is coded if more than one applies, unless patient is service connected for a condition incurred in a prior war. For frequency counts of the values for this variable, see the accompanying *VIREC Research User Guide: Select Variable Frequencies From The FY2002 VHA Medical SAS Datasets*.

|                         |   |
|-------------------------|---|
| Data Type               | Numeric                                   |
| Print Format            | PSRCDL.                                   |
| Label                   | PERIOD OF SVC RECODE                      |
| Datasets / Fiscal Years | Visit / 1985 – To Date                    |
| VISTA Data Source       | Patient (2) file, PERIOD OF SERVICE field |

**PS** can assume the following values:

| Value | Description            |
|-------|------------------------|
| 0     | Spanish-American War   |
| 1     | World War I            |
| 2     | World War II           |
| 3     | Pre-Korean War         |
| 4     | Korean War             |
| 5     | Post-Korean War        |
| 6     | Vietnam Era            |
| 7     | Post-Vietnam Era       |
| 8     | Other                  |
| 9     | Desert Storm (active)  |
| 10    | Desert Storm (veteran) |

Variable Name: **PSEUDO**

Definition: Pseudo-SSN indicator

Remarks: This variable indicates if the patient's Social Security Number (SSN) is recorded as a pseudo-Social Security Number created using numeric equivalents of the patient's initials and birth date. A pseudo-SSN is a temporary identification when the patient has no SSN or the patient's true SSN cannot be determined. The pseudo-SSN will be retained as a permanent identification number when a patient refuses to apply for a Social Security Number or death occurs before an SSN application can be made.

|                         |  |
|-------------------------|--|
| Data Type               | Character  |
| Print Format            | None   |
| Label                   | PSEUDO SSN                                       |
| Datasets / Fiscal Years | Visit / 1995 – To Date<br>Event / 1997 – To Date |
| VISTA Data Source       | Patient (2) file, SOCIAL SECURITY NUMBER field   |

**PSEUDO** can assume the following values:

| Value | Description   |
|-------|---|
| P     | Social Security Number recorded is a pseudo-SSN     |
| Blank | Social Security Number recorded is not a pseudo-SSN |

Variable Name: **RACE**

Definition: Race or national origin

Remarks: Reporting of race or ethnicity is most frequently extracted from clinical documentation (e.g., discharge summary) and/or observation of administrative staff. For frequency counts of the values for this variable, see the accompanying *VIReC Research User Guide: Select Variable Frequencies From The FY2002 VHA Medical SAS Datasets*.

|                         |   |
|-------------------------|---|
| Data Type               | Numeric   |
| Print Format            | RACEL.  |
| Label                   | RACE CODE   |
| Datasets / Fiscal Years | Visit / 1997 – To Date<br>Event / 1998 – To Date    |
| VISTA Data Source       | Patient (2) file, RACE field and ETHNIC GROUP field |

**RACE** can assume the following values:

| Value   | Description     |
|---------|-----------------|
| 1       | Hispanic, white |
| 2       | Hispanic, black |
| 3       | American Indian |
| 4       | Black           |
| 5       | Asian           |
| 6       | White           |
| 7       | Unknown value   |
| (Other) | Missing value   |

Variable Name:       **RAD**

Definition:           Exposure to Ionizing Radiation through nuclear testing or in Japan

Remarks:            This variable was added to the dataset in July of FY1982. It is self-reported and is not recorded for non-veterans or for those veterans in service prior to WWII. For frequency counts of the values for this variable, see the accompanying *VIREC Research User Guide: Select Variable Frequencies From The FY2002 VHA Medical SAS Datasets*.

|                         |   |
|-------------------------|---|
| Data Type               | Numeric   |
| Print Format            | RADL.   |
| Label                   | CLAIMED RADIATION EXPOSURE                        |
| Datasets / Fiscal Years | Visit / 1983 – To Date<br>Event / 1997 – To Date  |
| VISTA Data Source       | Patient (2) file, RADIATION EXPOSURE METHOD field |

**RAD** can assume the following values:

| Value | Description  |
|-------|--|
| 1     | No radiation exposure claim                            |
| 2     | Claim of radiation exposure in Japan                   |
| 3     | Claim of radiation exposure in the U.S.                |
| 4     | Claim of radiation exposure in both Japan and the U.S. |



Variable Name: **RELIG**

Definition: Religious preference

Remarks:

|                         |   |
|-------------------------|---|
| Data Type               | Character   |
| Print Format            | \$RELIG.  |
| Label                   | RELIGION CODE   |
| Datasets / Fiscal Years | Visit / 1997 – To Date  |
| VISTA Data Source       | Patient (2) file, RELIGIOUS PREFERENCE field<br>(reference file is RELIGION (13)) |

**RELIG** can assume the following values:

| Value | Description             |
|-------|-------------------------|
| 0     | Catholic                |
| 1     | Jewish                  |
| 2     | Eastern Orthodox        |
| 3     | Baptist                 |
| 4     | Methodist               |
| 5     | Lutheran                |
| 6     | Presbyterian            |
| 7     | United Church of Christ |
| 8     | Episcopalian            |
| 9     | Adventist               |
| 10    | Assembly of God         |
| 11    | Brethren                |
| 12    | Christian Science       |
| 13    | Church of Christ        |
| 14    | Church of God           |
| 15    | Disciples of Christ     |

| Value | Description               |
|-------|---------------------------|
| 16    | Evangelical Covenant      |
| 17    | Friends                   |
| 18    | Jehovah Witness           |
| 19    | Latter Day Saints         |
| 20    | Islamic                   |
| 21    | Nazarene                  |
| 22    | Other                     |
| 23    | Pentecostal               |
| 24    | Protestant, other         |
| 25    | Protestant, no preference |
| 26    | Reformed                  |
| 27    | Salvation Army            |
| 28    | Unitarian Universalist    |
| 29    | Unknown, no preference    |
| 30    | Native American           |
| 31    | Buddhist                  |

Variable Name:       **SCCI**

Definition:           Indicator of whether the condition being treated is service-connected

Remarks:

|                         |   |
|-------------------------|---|
| Data Type               | Character   |
| Print Format            | \$SCCI.   |
| Label                   | SVC-CON CONDITION INDICATOR   |
| Datasets / Fiscal Years | Event / 1997 – To Date  |
| VISTA Data Source       | Derived from Outpatient (409.42) file, OUTPATIENT CLASSIFICATION TYPE field |

**SCCI** can assume the following values:

| Value | Description  |
|-------|--|
| Blank | Not applicable                                       |
| 0     | Treatment not related to service-connected condition |
| 1     | Treatment related to service-connected condition     |

Variable Name: **SCRSSN**

Definition: Scrambled Social Security Number

Remarks: Scrambled Social Security Number was created in FY1986 as a replacement for the patient's real Social Security Number (SSN). It is a formula manipulation of the real SSN and not a randomly generated number. Therefore, **SCRSSN** may be used to identify a patient across fiscal years and datasets.

|                         |   |
|-------------------------|---|
| Data Type               | Numeric   |
| Print Format            | SSN11. (NNN-NN-NNNN)  |
| Label                   | SCRAMBLED SOCIAL SECURITY NUMBER  |
| Datasets / Fiscal Years | Visit / 1996 – To Date<br>Event / 1997 – To Date<br>(Note: Real SSN was listed 1980–85) |
| VISTA Data Source       | None (formula manipulation of Patient (2) file real SSN)                                |

Variable Name: **SEX**

Definition: Sex of patient

Remarks: For frequency counts of the values for this variable, see the accompanying *VIREC Research User Guide: Select Variable Frequencies From The FY2002 VHA Medical SAS Datasets*.

|                         |  |
|-------------------------|--|
| Data Type               | Character  |
| Print Format            | \$SEXL.  |
| Label                   | GENDER OF PATIENT                                |
| Datasets / Fiscal Years | Visit / 1985 – To Date<br>Event / 1997 – To Date |
| VISTA Data Source       | Patient (2) file, SEX field                      |

**SEX** can assume the following values:

| Value | Description |
|-------|-------------|
| F     | Female      |
| M     | Male        |

Variable Name: **STA3N**

Definition: Parent station identifier

Remarks: This is the 3-digit numeric identification of VAMC facilities. This variable indicates the parent station (VA hospital) or the parent station of a branch to which the patient was admitted. Use [STA5A](#) to identify the actual facility to which the patient was admitted. If a patient was admitted to a VAMC facility, then this variable and [STA5A](#) will have the same values. **STA3N** can assume the values shown in [Appendix C](#) on page 120. For frequency counts of the values for this variable, see the accompanying *VIReC Research User Guide: Select Variable Frequencies From The FY2002 VHA Medical SAS Datasets*.

|                         |   |
|-------------------------|---|
| Data Type               | Numeric   |
| Print Format            | STA3NL.   |
| Label                   | PARENT STATION                                    |
| Datasets / Fiscal Years | Visit / 1991 – To Date<br>Event / 1997 – To Date  |
| VISTA Data Source       | Station Number (389.9) file, STATION NUMBER field |

Variable Name: **STA5A**

Definition: Five-digit numeric identifier of the VA facility where care was provided

Remarks: This variable identifies the VA substation where the outpatient health encounter occurred. Since this variable can take as many as 1,100 distinct values, they are not listed in this document. Instead, users are referred to the VA Site Tracking (VAST) database, maintained by the Planning Systems Support Group (PSSG) of the Office of Policy and Planning, at <http://vaww.pssg.med.va.gov/vastmain.htm>. Those who do not have VA intranet access can call 202-273-8932 to obtain the list of substations. For frequency counts of the values for this variable, see the accompanying *VIREC Research User Guide: Select Variable Frequencies From The FY2002 VHA Medical SAS Datasets*.

|                         |   |
|-------------------------|---|
| Data Type               | Character   |
| Print Format            | \$STA52AL.  |
| Label                   | STATION WITH SUFFIX                                   |
| Datasets / Fiscal Years | Visit / 1991 – To Date<br>Event / 1997 – To Date      |
| VISTA Data Source       | Station Number (389.9) file, SERVICING FACILITY field |

Variable Name: **SVCPCT**

Definition: Patient's percentage (from 0 to 100) of service-connected disability

Remarks: The value recorded in this variable is the percentage of service-connected disability determined as part of establishing a veteran's eligibility for VA health care benefits. This variable does not indicate whether or not a veteran has any service-connected disability, because a veteran may have a service-connected disability and be recorded as 0% service-connected in this variable. For frequency counts of the values for this variable, see the accompanying *VIREC Research User Guide: Select Variable Frequencies From The FY2002 VHA Medical SAS Datasets*.

|                         |   |
|-------------------------|---|
| Data Type               | Number  |
| Print Format            | None  |
| Label                   | PERCENT OF SERVICE CONNECTED                            |
| Datasets / Fiscal Years | Visit / 1997 – To Date<br>Event / 2000 – To Date        |
| VISTA Data Source       | Patient (2) file, SERVICE CONNECTED<br>PERCENTAGE field |

Variable Name: **VISN**

Definition: Veterans Integrated Service Network (VISN) where the outpatient visit or event occurred

Remarks: VISNs are VHA organizational business units comprised of multiple medical centers and clinics within a geographic region. For frequency counts of the values for this variable, see the accompanying resource guide, *VIREC Research User Guide: Select Variable Frequencies From The FY2002 VHA Medical SAS Datasets*.

|                         |   |
|-------------------------|---|
| Data Type               | Numeric   |
| Print Format            | None  |
| Label                   | VETS INTEGRATED SERVICE NETWORK                   |
| Datasets / Fiscal Years | Visit / 1995 – To Date<br>Event / 1997 – To Date  |
| VISTA Data Source       | Derived from 389.9 File, SERVICING FACILITY field |

**VISN** can assume the following values:

| Value | Description                            |
|-------|--|
| 1     | VA New England Healthcare System       |
| 2     | VA Healthcare Network Upstate New York |
| 3     | VA NY / NJ Veterans Healthcare Network |
| 4     | VA Stars & Stripes Healthcare Network  |
| 5     | VA Capitol Health Care Network         |
| 6     | VA Mid-Atlantic Network                |
| 7     | The Atlantic Network                   |
| 8     | VA Sunshine Healthcare Network         |
| 9     | Mid South Veterans Healthcare Network  |
| 10    | VA Healthcare System of Ohio           |
| 11    | Veterans In Partnership                |
| 12    | The Great Lakes Health Care System     |
| 15    | VA Heartland Network                   |
| 16    | South Central VA Health Care Network   |
| 17    | VA Heart of Texas Health Care Network  |
| 18    | VA Southwest Healthcare Network        |
| 19    | Rocky Mountain Network                 |
| 20    | Northwest Network                      |
| 21    | Sierra Pacific Network                 |
| 22    | Desert Pacific Healthcare Network      |
| 23    | VA Midwest Health Care Network         |



Variable Name: **VIZDAY**

Definition: Date of the outpatient health care encounter

Remarks:

|                         |   |
|-------------------------|---|
| Data Type               | Numeric (SAS Date)                                      |
| Print Format            | DATE9. (DDMMMYYYY)                                      |
| Label                   | DATE OF VISIT   |
| Datasets / Fiscal Years | Visit / 1991 – To Date<br>Event / 1997 – To Date        |
| VISTA Data Source       | Outpatient Encounter (409.68), Date/Time of event field |

Variable Name: **ZIP**

Definition: Zip code

Remarks: This variable is the 5-digit postal code for the patient's home residence.

|                         |  |
|-------------------------|--|
| Data Type               | Numeric  |
| Print Format            | Z5.  |
| Label                   | ZIP CODE   |
| Datasets / Fiscal Years | Visit / 1980 – To Date<br>Event / 1997 – To Date |
| VISTA Data Source       | Patient (2) file, ZIP CODE field                 |

## VI. Works Cited

1. *National Patient Care Database (NPCD) – The FY1999 SAS® Datasets for the Outpatient Care File*. Edward J. Hines Jr. VA Hospital, Hines, IL: Veterans Affairs Information Resource Center, March 2000. Available at: <http://www.virec.research.med.va.gov>. Accessed March 13, 2003.
2. *National Patient Care Database (NPCD) – The FY1999 SAS® Datasets for the Patient Treatment File*. Edward J. Hines Jr. VA Hospital, Hines, IL: Veterans Affairs Information Resource Center, March 2000. Available at: <http://www.virec.research.med.va.gov>. Accessed March 13, 2003.
3. *The Medical SAS® Inpatient Datasets – FY2000: A VIREC Resource Guide*. Edward J. Hines Jr. VA Hospital, Hines, IL: Veterans Affairs Information Resource Center, September 2001. Available at: <http://www.virec.research.med.va.gov>. Accessed March 13, 2003.
4. *The Medical SAS® Outpatient Datasets – FY2000: A VIREC Resource Guide*. Edward J. Hines Jr. VA Hospital, Hines, IL: Veterans Affairs Information Resource Center, September 2001. Available at: <http://www.virec.research.med.va.gov>. Accessed March 13, 2003.
5. *Select Variable Frequencies From The Medical SAS® Inpatient and Outpatient Datasets – FY2000: A VIREC Resource Guide*. Edward J. Hines Jr. VA Hospital, Hines, IL: Veterans Affairs Information Resource Center, September 2001. Available at: <http://www.virec.research.med.va.gov>. Accessed March 13, 2003.
6. *Select Variable Frequencies From The VHA Medical SAS® Inpatient and Outpatient Datasets – FY2001: A VIREC Research User Guide*. Edward J. Hines Jr. VA Hospital, Hines, IL: Veterans Affairs Information Resource Center, April 2003. Available at: <http://www.virec.research.med.va.gov>. Accessed March 13, 2003.
7. *VIREC Research User Guide: FY2002 VHA Medical SAS® Outpatient Datasets*. Edward J. Hines Jr. VA Hospital, Hines, IL: Veterans Affairs Information Resource Center, April 2003. Available at: <http://www.virec.research.med.va.gov>. Accessed March 13, 2003.
8. *VIREC Research User Guide: Select Variable Frequencies From The FY2002 VHA Medical SAS® Inpatient and Outpatient Datasets*. Edward J. Hines Jr. VA Hospital, Hines, IL: Veterans Affairs Information Resource Center, April 2003. Available at: <http://www.virec.research.med.va.gov>. Accessed March 13, 2003.

9. Beattie MC, Swindle, RW, Tomko, LA. *Department of Veterans Affairs Database Resources Guide*. Available at: <http://vawww.va.gov/station/583Indianapolis/resguide/index.htm>. Accessed March 14, 2003.
10. Murphy PA, Cowper DC, Seppala G, Stroupe KT, Hynes DM. Veterans Health Administration inpatient and outpatient care data: A rich resource of research data. *Eff Clin Pract*. 2002;5:E4. Available at <http://www.acponline.org/journals/ecp>. Accessed March 14, 2003.
11. *Current procedural terminology: CPT / American Medical Association*. Standard ed. Chicago, IL: American Medical Association, 1998.
12. *International classification of diseases, 9th revision, clinical modification: ICD-9-CM*. 3rd ed. Los Angeles, CA: Practice Management Information Corporation, 1991.
13. Kang HK, et al. Resources for epidemiological research in Vietnam era veteran populations within the Department of Veterans Affairs, pp. 97-103 in William F. Page, Ed., *Epidemiology in Military and Veteran Populations*. Washington DC: National Academy Press, 1991.
14. Kashner TM, et al. Agreement between administrative files and written medical records. *Medical Care*. 1998; 36(9): 1324-1336.
15. Szeto HC, Coleman RK, Gholami P, Hoffman BB, Goldstein MK. Accuracy of computerized outpatient diagnoses in a Veterans Affairs general medicine clinic. *Am J Manag Care*. 2002 Jan;8(1):37-43.
16. Tang PC; LaRosa MP; Gorden SM. Use of Computer-based records, completeness of documentation, and appropriateness of documented clinical decisions. *J Am Med Inform Assoc*. 1999 May-Jun; 6(3):245-51.
17. Marshall PD; Chin HL. The effects of an electronic medical record on patient care: Clinician attitudes in a large HMO. *Proc AMLA Symp*. 1998; 150-4.
18. Kerr MA, Cowper DC. Reliability and Validity of Select Data in the National Care Database (NPCD): A Pilot Study. VA HSR&D LIP42-061, 1999.

## **Appendix A: Comprehensive Listing of the Variables in the Medical SAS Outpatient Datasets**

(The listing begins on the next page.)

**VISIT (SF)** variables from FY1980 – FY2002

| <b>Variable</b> | <b>Label</b>            | <b>Fiscal Years</b> | <b>Bytes</b> | <b>Type*</b> | <b>Format</b> |
|-----------------|-------------------------|---------------------|--------------|--------------|---------------|
| AGE             | AGE                     | 1980–               | 2            | N            |               |
| AGE15R          | AGE GROUP (15 GROUPS)   | 1981–82             | 2            | N            | AGE15R        |
| AGE 16R         | AGE GROUP (16 GROUPS)   | 1983–84             | 2            | N            | XAGE16R       |
|                 |                         | 1980–82             | 8            | N            | AGE11GR       |
| AGOIND          | AGENT ORANGE INDICATOR  | 2002 –              | 1            | C            | \$XXYN        |
| AGOLOC          | AGENT ORANGE LOCATION   | 2002 –              | 1            | C            | \$AGOLOC      |
| AG8R            | AGE GROUP (8 GROUPS)    | 1997–               | 2            | N            | AG9RL         |
|                 |                         | 1991–96             | 2            | N            | AG8RL         |
|                 |                         | 1980–90             | 2            | N            | AG8RL5        |
| AMBSURG         | AMBULATORY SURGURY      | 1985–88             | 1            | C            | \$XXSPSVC     |
| AOR             | CLAIMED AGENT ORANGE    | 1983–84             | 2            | N            | AORL          |
| AUSBLO          | AUSTIN INFLATION        | 1985–85             | 8            | N            |               |
| AUSBLOW         | AUSTIN BLOWUP FACTOR    | 1983–84             | 8            | N            |               |
| BLOWUP          | INFLATION FACTOR        | 1981–91             | 8            | N            |               |
| CATSCAN         | CAT SCAN                | 1985–88             | 8            | N            | \$XXSPSVC     |
| CATVIZ          | CATEGORY OF VISIT       | 1980–84             | 2            | N            | XCATVIZ       |
| CHEMO           | CANCER CHEMO            | 1985–88             | 1            | C            | \$XXSPSVC     |
| CL1 – CL15      | CLINIC STOP NUMBER 1-15 | 1988–               | 3            | N            | YCLINIC       |
|                 |                         | 1986–87             | 3            | N            | XXCLINIC      |
|                 |                         | 1980–84             | 3            | N            | XCLINIC       |
|                 |                         | 1980–84             | 2            | N            | XCLINIC       |
| DOB             | DATE OF BIRTH           | 1997–               | 4            | N            | DATE9         |
| DIP             | DISPOSITION AT          | 1980–84             | 2            | N            | XDIP          |
| DISTRICT        | MEDICAL DISTRICT        | 1980–90             | 2            | N            |               |

| Variable  | Label                     | Fiscal Years | Bytes | Type* | Format    |
|-----------|---------------------------|--------------|-------|-------|-----------|
| ELIG      | ELIGIBILITY CODE          | 1990–        | 2     | N     | YELIG     |
|           |                           | 1985–89      | 2     | N     | XXELIG    |
|           |                           | 1980–84      | 2     | N     | XELIG     |
| ELIGR     | ELIGIBILITY RECORD        | 1980–84      | 2     | N     | XELIGR    |
| HOMECONTY | HOME COUNTY               | 1980–        | 4     | N     | COUNTYL   |
| HOMEDIST  | HOME DISTRICT             | 1985         | 2     | N     |           |
|           |                           | 1987–91      | 2     | N     |           |
| HOMEPSA   | HOME PRIM. SVC. AREA      | 1994–        | 3     | N     | STA3NL    |
|           |                           | 1992–93      | 4     | N     | STA3NL15  |
|           |                           | 1987–91      | 8     | N     | STA3NL    |
| HOMEVISN  | VISN OF HOME RESIDENCE    | 1995–        | 2     | N     |           |
| HOMREGDV  | HOME REGIONAL DIVISION    | 1992–95      | 2     | N     | REGIONL   |
| HOMSTATE  | HOME STATE                | 1994–        | 2     | N     | STATEL    |
|           |                           | 1980–93      | 2     | N     | STATEL16  |
| INCOME    | ANNUAL INCOME             | 1992–        | 8     | N     | COMMA6    |
| INS       | INSURANCE COVERAGE        | 1997–        | 2     | C     | \$INSUR   |
| LOCVIZ    | LOCATION OF VISIT         | 1989–95      | 2     | N     | XLOCVIZ   |
| MARITAL   | MARITAL STATUS            | 1997–        | 1     | C     | \$MARITAL |
| MEANS     | MEANS TEST INDICATOR      | 1987–        | 2     | C     | \$MEANSL  |
| MV        | MONTH OF VISIT            | 1980–84      | 2     | N     | MONTHL    |
| NMRSCAN   | NMR SCAN                  | 1985–88      | 1     | C     | \$XXSPSVC |
| NCPT      | NATIONAL CPT INDICATOR    | 1993–96      | 1     | C     |           |
| NODEPS    | NO. OF DEPENDENTS         | 1988–        | 2     | C     |           |
| NPROC     | NO. OF PROCEDURE SEGMENTS | 1990–96      | 2     | N     |           |
| NSTOPS    | NUMBER CLINIC STOPS       | 1980–        | 3     | N     |           |

| <b>Variable</b> | <b>Label</b>                       | <b>Fiscal Years</b> | <b>Bytes</b> | <b>Type*</b> | <b>Format</b> |
|-----------------|------------------------------------|---------------------|--------------|--------------|---------------|
| NTRIND          | CLAIMED NOSE THROAT RADIUM EXP     | 2002–               | 1            | C            | \$XXYN        |
| OD              | OLD DISTRICT                       | 1985–90             | 2            | N            |               |
| OR              | OLD REGION                         | 1985–90             | 2            | N            |               |
| ORNG            | AGENT ORANGE EXPOSURE (CLAIMED)    | 1998–01             | 1            | C            | ORNGL.        |
|                 |                                    | 1985–97             | 1            | C            | \$\$XXYN      |
| POS             | PERIOD OF SERVICE                  | 1997–               | 1            | C            | \$XXPDSEV     |
|                 |                                    | 1992–96             | 1            | C            | \$ZPS         |
| POV             | PURPOSE OF VISIT                   | 1985–               | 1            | C            | \$XXPOV       |
| POW             | PRISONER OF WAR                    | 1985–               | 1            | C            | \$XXPOW       |
| POWLOC          | PRISONER OF WAR LOCATION           | 2001–               | 1            | C            | \$POWLOC      |
| PS              | PERIOD OF SERVICE RECODE           | 1997–               | 1            | N            | PSRCDL        |
|                 |                                    | 1980–96             | 1            | N            | XPS           |
| PSEUDO          | PSEUDO SSN                         | 1995–               | 1            | C            | \$YESNO       |
| PSYCH           | PSYCH CLINIC                       | 1980–84             | 2            | N            | XPSYCH        |
| RACE            | RACE CODE                          | 1997–               | 2            | N            | RACEL         |
| RAD             | CLAIMED RADIATION EXPOSURE         | 1983–               | 2            | N            | RADL          |
| RADTHER         | RADIATION THERAPY                  | 1985–88             | 1            | C            | \$XXSPSVC     |
| RAOADMIT        | ADMIT. FOR AG. ORANGE OR RADIATION | 1984–96             | 2            | N            | XRAOAMIT.     |
| RAOTREAT        | TREAT. FOR AG. ORANGE OR RADIATION | 1984–96             | 2            | N            | XRAOTRET      |
| REGDIV          | REGIONAL DIVISION                  | 1991–94             | 2            | N            | REGIONL       |
| REGION          | MEDICAL REGION                     | 1980–95             | 2            | N            | REGIONL       |
| RELIG           | RELIGION CODE                      | 1997–               | 3            | C            | \$RELIG       |
| SCRSSN          | SCRAMBLED SSN                      | 1986–               | 5            | N            | SSN11         |
| SC1             | SC STATUS (WITHOUT TRAUMA)         | 1980–84             | 2            | N            | XSC           |
| SC2             | SC STATUS (WITH TRAUMA)            | 1980–84             | 2            | N            | XSC           |



| <b>Variable</b> | <b>Label</b>                    | <b>Fiscal Years</b> | <b>Bytes</b> | <b>Type*</b> | <b>Format</b> |
|-----------------|---------------------------------|---------------------|--------------|--------------|---------------|
| SEX             | SEX                             | 1985–               | 1            | C            | \$SEXL        |
| SSN             | SOCIAL SECURITY NUMBER          | 1980–85             | 5            | N            | SSN           |
| STABLOUP        | STATION INFLATION               | 1985–85             | 8            | N            |               |
| STA3N           | PARENT STATION                  | 1980–               | 3            | N            | STA3NL        |
| STA4A           | STATION (PRE FY 1991)           | 1980–91             | 4            | C            | \$STA4AL      |
| STA5A           | STATION                         | 1991–               | 5            | C            | \$STA52AL     |
| SVCPCT          | PERCENT OF SERVICE CONNECTED    | 1997–               | 2            | N            |               |
| TRANSFUL        | BLOOD TRANSFUSION               | 1985–88             | 1            | C            | \$XXSPXVC     |
| TREAT           | TREATMENT VISIT                 | 1980–84             | 2            | N            | XTREAT        |
| VIET            | VIETNAM SERVICE                 | 1985–96             | 1            | C            | \$XXYN        |
| UPDMON          | DATE RECORD LAST UPDATED        | 1995–96             | 8            | N            |               |
| VISN            | VETS INTEGRATED SERVICE NETWORK | 1995–               | 8            | N            |               |
| VIZDAY          | DATE OF VISIT                   | 1997–               | 4            | N            | DATE9         |
|                 |                                 | 1980–96             | 4            | N            | DATE7         |
| YOB             | YEAR OF BIRTH                   | 1980–96             | 3            | N            |               |
| YV              | YEAR OF VISIT                   | 1980–84             | 2            | N            |               |
| ZIP             | ZIP CODE                        | 1986–               | 5            | C            |               |
|                 |                                 | 1980–85             | 4            | N            |               |

\* N = Numeric; C = Character

**EVENT (SE) variables from FY1997 – FY2002**

| <b>Variable</b> | <b>Label</b>   | <b>Fiscal Years</b> | <b>Bytes</b> | <b>Type*</b> | <b>Format</b> |
|-----------------|--|---------------------|--------------|--------------|---------------|
| AGE             | AGE IN YEARS   | 1997–               | 8            | N            |               |
| AGOIND          | AGENT ORANGE INDICATOR   | 2002 –              | 1            | C            | \$XXYN        |
| AGOLOC          | AGENT ORANGE LOCATION  | 2002 –              | 1            | C            | \$AGOLOC      |
| AG8R            | AGE GROUP (9 GROUPS)   | 1997–               | 8            | N            | AG9RL         |
| APPTYP          | APPOINTMENT TYPE CODE  | 1997–               | 2            | C            | \$XXAPPT      |
| CL              | PRIMARY CLINIC STOP  | 1997–               | 3            | N            | YCLINIC       |
| CLC             | CREDIT CLINIC STOP   | 1997–               | 3            | N            | YCLINIC       |
| CPT1–CPT15      | CPT-4 CODE 1-15  | 1997–               | 5            | C            |               |
| DOB             | DATE OF BIRTH (SASDATE)  | 1997–               | 4            | N            | DATE9         |
| DXF2–DXF10      | 2 <sup>ND</sup> – 10 <sup>TH</sup> DX-FULL STAY (ICD9) (6-DIGIT) | 1997–               | 6            | C            |               |
| DXLSF           | PRIMARY DX STAY (ICD9) (6-DIGIT)                                 | 1997–               | 6            | C            |               |
| ELIG            | ELIGIBILITY CODE   | 1997–               | 2            | N            | YELIG         |
| ENV             | ENVIRONMENTAL INDICATOR  | 1997–               | 1            | C            |               |
| HOMECONTY       | STATE/COUNTY OF RESIDENCE  | 1997–               | 4            | N            | COUNTYL       |
| HOMEPSA         | PRIMARY SERVICE AREA   | 1997–               | 3            | N            | STA3NL        |
| HOMEVISN        | VISN OF RESIDENCE  | 1997–               | 2            | N            |               |
| HOMLESS         | HOMELESS CODE  | 1997–               | 1            | C            | \$XXYN        |
| HOMSTATE        | STATE OF RESIDENCE   | 1997–               | 8            | N            | STATEL        |
| LOCVIZ          | LOCATION OF VISIT  | 1997–               | 2            | N            | XLOCVIZ       |
| MARITAL         | MARITAL STATUS   | 1997–               | 1            | C            | \$MARITAL     |
| MEANS           | MEANS TEST INDICATOR   | 1997–               | 2            | C            | \$MEANSL      |
| MULTI           | MULTIPLE/SINGLE STATION INDICATOR                                | 1997–               | 1            | C            | \$MULTI       |
| NCODES          | NUMBER OF CPT CODES THIS SEGMENT                                 | 1997–               | 2            | N            |               |
| NDIAG           | NUMBER OF DIAG CODES   | 1997–               | 8            | N            |               |
| NPROV           | NUMBER OF PROV THIS SEGMENT                                      | 1997–               | 2            | N            |               |
| NPROVID         | NUMBER OF PROV IDS THIS SEGMENT                                  | 1997–               | 8            | N            |               |

| <b>Variable</b>      | <b>Label</b>                       | <b>Fiscal Years</b> | <b>Bytes</b> | <b>Type*</b> | <b>Format</b> |
|----------------------|------------------------------------|---------------------|--------------|--------------|---------------|
| NTRENC               | NOSE THROAT RADIUM TRMT IND        | 2002–               | 1            | C            | \$NTRENC      |
| ORNG                 | AGENT ORANGE EXPOSURE (CLAIMED)    | 1997–               | 1            | C            | \$ORNGL       |
| POV                  | PURPOSE OF VISIT                   | 1997–               | 1            | C            | \$XXPOV       |
| PROV1–<br>PROV10     | PROVIDER TYPE 1 – PROVIDER TYPE 10 | 1997–               | 4            | N            | XXPROV.       |
| PROVID1–<br>PROVID10 | PROVIDER ID 1 – PROVIDER 10        | 1997–               | 18           | C            |               |
| PSEUDO               | PSEUDO SSN                         | 1997–               | 1            | C            | \$YESNO       |
| RACE                 | RACE CODE                          | 1997–               | 2            | N            | RACEL         |
| RAD                  | CLAIMED RADIATION EXPOSURE         | 1997–               | 2            | N            | RADL          |
| SCCI                 | SVC-CON CONDITION INDICATOR        | 1997–               | 1            | C            | \$SCCI        |
| SCRSSN               | SCRAMBLED SSN                      | 1997–               | 5            | N            | SSN11         |
| SEX                  | SEX                                | 1997–               | 1            | C            |               |
| STA3N                | PARENT STATION                     | 1997–               | 3            | N            | STA3NL        |
| STA5A                | STATION NUMBER                     | 1997–               | 5            | C            | STA52AL       |
| VISN                 | VETS INTEGRATED SERVICE NETWORK    | 1997–               | 2            | N            |               |
| VIZDAY               | DATE OF VISIT                      | 1997–               | 4            | N            | DATE9         |
| ZIP                  | ZIP CODE                           | 1997–               | 4            | N            |               |

\* N = Numeric; C = Character

(This page is intentionally left blank.)

## **Appendix B: Comprehensive Listing of All Historic Datasets**

(The listing begins on the next page.)

# **VISIT (SF) DATASETS** from FY1980 – FY2002

| <b>Dataset Name</b>         | <b>Fiscal Years</b> | <b>Effective Area</b> | <b>Comment</b>   |
|-----------------------------|---------------------|-----------------------|--|
| MDPPRD.MDP.SAS.SFyy         | 1991–To Date        | National              | Enter (0) behind yy signifies a request for the most current version when requesting the current fiscal year |
| MDPPRD.MDP.SAS.SFyy.QTRn    | Current Year        | National              | These datasets store information on a fiscal year quarterly basis (n=1–4).                                   |
| MDPPRD.MDP.SAS.REVISED.SFyy | 1997–To Date        | National              | Revised dataset  |
| MDPPRD.MDP.STAFF.Syy        | 1980–1985           | National              | 20% sample   |
| MDPPRD.MDP.SAS.OPC.FYyy.F   | 1986–1990           | National              |  |
| MDPPRD.MDP.SAS.OPC.FYyyRx F | 1986–1990           | Regional              | Enter region number in x. There were 4 regions between FY 1986 –90   |
| MDPPRD.MDP.SAS.SFyyRn       | 1991–1995           | Regional              | There were 7 regions between FY 1991–95  |
| MEDPRD.MDP.SAS.SfyyRnd      | 1991–1995           | Regional Division     | There were up to 4 divisions per region between FY 1991–95   |

**EVENT (SE) DATASETS** from FY1997 – FY2002

| <b>Dataset Name</b>          | <b>Fiscal Years</b> | <b>Effective Area</b> | <b>Comment</b>  |
|------------------------------|---------------------|-----------------------|---|
| MDPPRD.MDP.SAS.SEyy          | 1997–To Date        | National              | This file was stored on tape but is now on DASD (disk) starting in FY 2000. |
| MDPPRD.MDP.SAS.SEyy.QTRn     | Current Year        | National              | These datasets store information on a fiscal year quarterly basis (n=1–4).  |
| MDPPRRD.MDP.SAS.REVISED.SEyy | 1997–To Date        | National              | Revised dataset   |

**PROCEDURE (SC) DATASETS** from FY1990 – FY 2002

| <b>Dataset Name</b>       | <b>Fiscal Years</b> | <b>Effective Area</b> | <b>Comment</b>   |
|---------------------------|---------------------|-----------------------|--|
| MDPPRD.MDP.SAS.SCyy       | 1990–2001           | National              | Enter (0) behind yy signifies a request for the most current version when requesting the current fiscal year |
| MDPPRD.MDP.SAS.OPC.SCyyRr | 1991–2001           | Regional              | There were 7 regions between FY91-FY95   |
| MEDPRD.MDP.SAS.SCyyRnd    | 1991–1995           | Regional Division     | There were up to 4 divisions per region between FY91-FY95  |
| MDPPRD.MDP.SAS.OPC.CP90F  | 1990                | National              |  |



**DIAGNOSIS (SG) DATASETS** from FY1997 – FY 2002

| <b>Dataset Name</b> | <b>Fiscal Year(s)</b> | <b>Effective Area</b> | <b>Comment</b>  |
|---------------------|-----------------------|-----------------------|---|
| MDPPRD.MDP.SAS.SGyy | 1997–2001             | National              | Enter (0) behind yy to signify a request for the most current version when requesting the current fiscal year |

(This page is intentionally left blank.)

## **Appendix C: Values for Selected Variables**

(Values and their descriptions begin on the following page.)

CL can assume the following values:\*

| Value            | Description  |
|------------------|--|
| 101 <sup>+</sup> | Emergency unit   |
| 102              | Admit/screening  |
| 103              | Telephone triage   |
| 104              | Pulmonary function   |
| 105              | X-ray  |
| 106              | Electroencephalogram or electroencephalograph (EEG)  |
| 107              | Electrocardiogram or electrocardiograph (EKG)<br>107473 – Echocardiogram                         |
| 108              | Laboratory   |
| 109              | Nuclear medicine   |
| 115              | Ultrasound   |
| 116              | Respiratory therapy<br>116329 – respiratory therapy procedures                                   |
| 117              | Nursing<br>117473 – Purified Protein Derivative (PPD) (Tuberculosis) clinic<br>117710 – Flu shot |
| 118              | Home treatment services  |
| 119              | Community nursing home follow-up   |
| 120              | Health screening   |
| 121              | Residential care – non mental health   |
| 122              | Public health nursing  |
| 123              | Nutrition/dietetics – individual   |
| 124              | Nutrition/dietetics – group  |
| 125              | Social work service  |
| 126              | Evoked potential   |
| 127              | Topographical brain mapping  |
| 128              | Prolonged video-EEG monitoring   |
| 144              | Radionuclide therapy   |
| 145              | Pharmacology/physiologic nuclear myocardial perfusion studies                                    |
| 146              | Positron emission tomography (PET)   |
| 147              | Telephone/ancillary<br>147209 – Telephone visual impairment services team (VIST)                 |
| 148              | Telephone/diagnostic   |
| 149              | Radiation therapy treatment  |
| 150              | Computerized tomography (CT)   |
| 151              | Magnetic resonance imaging (MRI)   |
| 152              | Angiogram catheterization  |
| 153              | Interventional radiography   |
| 160              | Clinical pharmacy  |
| 165              | Bereavement Counseling   |
| 166              | Chaplain service – individual  |
| 167              | Chaplain service – group   |

| Value | Description  |
|-------|--|
| 168   | Chaplain service – collateral  |
| 169   | Telephone/chaplain   |
| 170   | Home based primary care (HBPC) – physician   |
| 171   | HBPC – RN/RNP/PA   |
| 172   | HBPC – nurse extender  |
| 173   | HBPC – social worker   |
| 174   | HBPC – therapist<br>174202 – HBPC – Recreation therapy<br>174205 – HBPC – Physical therapy<br>174206 – HBPC – Occupational therapy   |
| 175   | HBPC – dietician   |
| 176   | HBPC – clinical pharmacist   |
| 177   | HBPC – other<br>177201 – HBPC – Physical Medicine & rehabilitation service (PM&RS)<br>177210 – HBPC – Spinal cord injury   |
| 178   | HBPC – Telephone   |
| 179   | Tele-home care technology unit   |
| 180   | Dental   |
| 181   | Telephone/dental   |
| 190   | Adult day health care  |
| 201   | Physical Medicine & rehabilitation service (PM&RS)   |
| 202   | Recreation therapy service   |
| 203   | Audiology  |
| 204   | Speech pathology   |
| 205   | Physical therapy   |
| 206   | Occupational therapy   |
| 207   | PM&RS incentive therapy  |
| 208   | PM&RS compensated work therapy (CWT)<br>208466 – Domiciliary (DOM) CWT   |
| 209   | VIST coordinator<br>209125 – VIST coordinator by social worker   |
| 210   | Spinal cord injury (SCI)<br>210414 – SCI – cystouro<br>210468 – SCI – RN procedure   |
| 211   | Amputation follow-up clinic  |
| 212   | EMG – Electromyogram   |
| 213   | PM&RS vocational assistance<br>213466 – Veterans education/training DOM  |
| 214   | Kinesiotherapy   |
| 215   | SCI home care program  |
| 216   | Telephone rehabilitation (REHAB) and support<br>216203 – Telephone audiology REHAB support service<br>216204 – Telephone speech REHAB support service<br>216210 – Spinal cord injury telephone support |

| Value | Description  |
|-------|--|
| 217   | Blind REHAB outpatient specialist (BROS)   |
| 290   | Observation medicine   |
| 291   | Observation surgery  |
| 292   | Observation psychiatry   |
| 293   | Observation neurology  |
| 294   | Observation blind REHAB  |
| 295   | Observation spinal cord  |
| 296   | Observation rehabilitation   |
| 301   | General internal medicine  |
| 302   | Allergy immunology   |
| 303   | Cardiology<br>303201 – Cardiac REHAB   |
| 304   | Dermatology<br>304416 – Dermatology photo therapy  |
| 305   | Endocrinology/metabolism (except diabetes)   |
| 306   | Diabetes<br>306117 – Diabetes education  |
| 307   | Gastroenterology<br>307117 – Enterostomal clinic<br>307454 – Liver   |
| 308   | Hematology   |
| 309   | Hypertension   |
| 310   | Infectious disease   |
| 311   | Pacemaker  |
| 312   | Pulmonary/chest  |
| 313   | Renal/nephrology<br>313457 – Transplant  |
| 314   | Rheumatology/arthritis   |
| 315   | Neurology<br>315456 – Epilepsy<br>315469 – Movement disorder<br>315470 – Sleep disorder                                  |
| 316   | Oncology/tumor<br>316419 – Radiology prescription (with oncology medicine service)<br>316329 – Oncology/tumor procedures |
| 317   | Coumadin clinic  |
| 318   | Geriatric clinic   |
| 319   | Geriatric evaluation and management (GEM) clinic   |
| 320   | Alzheimer's and dementia clinic  |
| 321   | Gastrointestinal endoscopy   |
| 322   | Women's clinic   |
| 323   | Primary care/medicine  |
| 324   | Telephone/medicine   |
| 325   | Telephone/neurology  |

| Value | Description  |
|-------|--|
| 326   | Telephone/geriatrics   |
| 327   | Physician (MD) perform invasive operating room procedure (Medical service)   |
| 328   | Medical surgical day unit (MSDU)   |
| 329   | Medical procedure unit   |
| 330   | Chemotherapy procedures unit medicine  |
| 331   | Pre-bed care – physician (MD) (Medical service)  |
| 332   | Pre-bed care – RN (Medical service)  |
| 333   | Cardiac catheterization  |
| 334   | Cardiac stress test/exercise tolerance test (ETT)  |
| 350   | Geriatric primary care   |
| 401   | General surgery  |
| 402   | Cardiac surgery  |
| 403   | Ear, nose, and throat (ENT)  |
| 404   | Gynecology   |
| 405   | Hand surgery   |
| 406   | Neurosurgery   |
| 407   | Ophthalmology  |
| 408   | Optometry  |
| 409   | Orthopedics  |
| 410   | Plastic surgery<br>410210 – SCI plastic  |
| 411   | Podiatry   |
| 412   | Proctology   |
| 413   | Thoracic surgery   |
| 414   | Urology<br>414451 – Impotency<br>414473 - Urodynamics  |
| 415   | Vascular surgery<br>415461 – Aneurysm detection and management (ADAM) clinic   |
| 416   | Ambulatory surgery evaluation by non-MD  |
| 417   | Prosthetic, orthotics: evaluation, fitting, and/or measuring<br>417201 – Major med<br>417451 – Wheel chair<br>417452 – Cushion<br>417455 – Shoe/brace<br>417473 – Orthotic lab<br>417474 – Prosthetics lab |
| 418   | Amputation clinic  |
| 419   | Anesthesia pre-operation and/or post-operation consultation  |
| 420   | Pain clinic  |
| 421   | Vascular laboratory  |
| 422   | Cast clinic  |
| 423   | Prosthetic supply ordering services  |
| 424   | Telephone/surgery  |

| Value            | Description   |
|------------------|---|
| 425              | Telephone/prosthetics/orthotics   |
| 426              | Women's surgery   |
| 428              | Telephone/optometry   |
| 429              | Outpatient care in the operating room   |
| 430              | Cysto room unit for outpatient  |
| 431              | Chemotherapy procedures unit – surgery  |
| 432              | Pre-bed care MD (surgical service)  |
| 433              | Pre-bed care RN (surgical service)  |
| 435              | Surgical procedure unit   |
| 450 <sup>+</sup> | Compensation and pension exam   |
| 451 <sup>+</sup> | Special DSS credit pair – locally defined   |
| 452 <sup>+</sup> | Special DSS credit pair – locally defined   |
| 453 <sup>+</sup> | Special DSS credit pair – locally defined   |
| 454 <sup>+</sup> | Special registry 5  |
| 455 <sup>+</sup> | Special DSS credit pair – locally defined   |
| 456 <sup>+</sup> | Special registry 6  |
| 457 <sup>+</sup> | Transplant  |
| 458 <sup>+</sup> | Special registry 7  |
| 459 <sup>+</sup> | Special registry 8  |
| 460 <sup>+</sup> | Special DSS credit pair – locally defined   |
| 461 <sup>+</sup> | Special registry 1  |
| 462 <sup>+</sup> | Special DSS credit pair – locally defined   |
| 463 <sup>+</sup> | Special DSS credit pair – locally defined   |
| 464 <sup>+</sup> | Special DSS credit pair – locally defined   |
| 465 <sup>+</sup> | Special DSS credit pair – locally defined   |
| 466 <sup>+</sup> | Special DSS credit pair – locally defined   |
| 467 <sup>+</sup> | Special DSS credit pair – locally defined   |
| 468 <sup>+</sup> | Special DSS credit pair – locally defined   |
| 469 <sup>+</sup> | Special registry 2  |
| 470 <sup>+</sup> | Special registry 3  |
| 471 <sup>+</sup> | Special DSS credit pair – locally defined   |
| 472 <sup>+</sup> | Special DSS credit pair – locally defined   |
| 473 <sup>+</sup> | Special DSS credit pair – locally defined   |
| 474 <sup>+</sup> | Research  |
| 475 <sup>+</sup> | Special DSS credit pair – locally defined   |
| 476 <sup>+</sup> | Special DSS credit pair – locally defined   |
| 477 <sup>+</sup> | Special DSS credit pair – locally defined   |
| 478 <sup>+</sup> | Special DSS credit pair – locally defined   |
| 479 <sup>+</sup> | Special DSS credit pair – locally defined   |
| 480 <sup>+</sup> | Comprehensive funduscopy examination. Primarily to be used with 301, 305, 306, 323, 350, 407, and 408 (i.e., for patients with diabetes or hypertension). |



| Value            | Description  |
|------------------|--|
| 481 <sup>+</sup> | Bronchoscopy<br>429481 – Outpatient bronchoscopy done by Surgery in the operating room<br>312481 – Outpatient bronchoscopy done in the Pulmonary area<br>327481 – Outpatient bronchoscopy done by Medicine in the operating room<br>329481 – Outpatient bronchoscopy done in the Medical Procedure Unit<br>435481 – Outpatient bronchoscopy done in “Lumps and Bumps” Surgery Procedure unit |
| 482 <sup>+</sup> | Special DSS credit pair – locally defined  |
| 483 <sup>+</sup> | Special DSS credit pair – locally defined  |
| 484 <sup>+</sup> | Special DSS credit pair – locally defined  |
| 485 <sup>+</sup> | Special DSS credit pair – locally defined  |
| 502              | Mental health clinic – individual  |
| 503              | Mental health residential care – individual  |
| 505              | Day treatment – individual   |
| 506              | Day hospital – individual  |
| 509              | Psychiatry MD – individual   |
| 510              | Psychology – individual<br>510473 – Neuro psychology lab<br>510474 – Psychology research<br>510509 – Psychology – psychiatry   |
| 512              | Psychiatry consultation  |
| 513              | Substance abuse – individual<br>513461 – Individual substance abuse: alcohol dependence<br>513469 – Individual substance abuse: drug dependence  |
| 514              | Substance abuse – home visit   |
| 516              | Post-Traumatic stress disorder (PTSD) – group<br>516726 – PTSD DOM – aftercare group   |
| 519              | Substance use disorder/PTSD teams  |
| 520              | Long-term enhancement – individual   |
| 521              | Long-term enhancement – group  |
| 522              | Department of Housing and Urban Development (HUD)-VA shared housing (VASH)   |
| 523              | Opioid substitution  |
| 524              | Active duty sex trauma   |
| 525              | Women’s stress disorder treatment teams  |
| 527              | Telephone/general psychiatry<br>527564 – Telephone mental health team case management  |
| 528              | Telephone/homeless mentally ill (HMI)  |
| 529              | Health Care for Homeless Veterans (HCHV)/HMI   |
| 530              | Telephone/HUD-VASH   |
| 531              | Mental health primary care team – individual   |
| 532              | Psychosocial rehabilitation – individual   |
| 533              | Mental health biomedical care – individual   |
| 535              | Mental health vocational assistance – individual   |

| Value | Description  |
|-------|--|
| 536   | Telephone/mental health vocational assistance  |
| 537   | Telephone/psychosocial rehabilitation  |
| 538   | Psychological testing  |
| 540   | Post-Traumatic Stress Disorder (PTSD) clinical team (PCT)  |
| 542   | Telephone/Post-Traumatic Stress Disorder (PTSD)  |
| 545   | Telephone/substance abuse<br>545461 – Telephone/substance abuse – alcohol dependance<br>545469 – Telephone/substance abuse – drug dependance                               |
| 546   | Telephone/Mental Health Intensive Case Management (MHICM)  |
| 547   | Intensive substance abuse treatment<br>547461 – Intensive substance abuse treatment – alcohol dependance<br>547469 – Intensive substance abuse treatment – drug dependance |
| 550   | Mental health clinic – group   |
| 552   | Mental Health Intensive Case Management (MHICM)  |
| 553   | Day treatment – group  |
| 554   | Day hospital – group   |
| 557   | Psychiatry – group   |
| 558   | Psychology – group   |
| 559   | Psychosocial rehabilitation – group  |
| 560   | Substance abuse – group<br>560461 – Group Substance abuse – alcohol dependance<br>560469 – Group Substance abuse – drug dependance   |
| 561   | Post-Traumatic Stress Disorder Clinical Team (PCT) – group   |
| 562   | Post-Traumatic Stress Disorder (PTSD) – individual   |
| 563   | Mental health primary care team – group  |
| 564   | Mental health team case management   |
| 565   | Mental Health Medical Care Only – group  |
| 566   | Mental Health Risk Factor Reduction Education Group  |
| 573   | Mental health incentive therapy – group  |
| 574   | Mental health compensated work therapy – group   |
| 575   | Mental health vocational assistance – group  |
| 576   | Psychogeriatric clinic, individual   |
| 577   | Psychogeriatric clinic, group  |
| 578   | Psychogeriatric day program  |
| 579   | Telephone / psychogeriatrics   |
| 580   | Post-Traumatic Stress Disorder (PTSD) day hospital   |
| 581   | Post-Traumatic Stress Disorder (PTSD) day treatment  |
| 589   | Non-active duty sex trauma   |
| 590   | Community outreach homeless veterans by staff  |
| 602   | Chronic assisted hemodialysis treatment  |
| 603   | Limited self-care hemodialysis treatment   |
| 604   | Home/self hemodialysis training treatment  |
| 606   | Chronic assisted peritoneal dialysis   |
| 607   | Limited self-care peritoneal dialysis  |

| Value            | Description  |
|------------------|--|
| 608              | Home/self peritoneal dialysis training                           |
| 610              | Contract dialysis  |
| 611              | Telephone/dialysis   |
| 650              | Contract nursing home days                                       |
| 656              | Department of Defense Non-VA care                                |
| 670              | Assisted living Veterans Health Administration – Paid staff      |
| 680              | Home/community healthcare assessment                             |
| 681              | VA-paid home/community healthcare providers                      |
| 682              | VA referrals to home/community healthcare providers              |
| 690 <sup>†</sup> | Telemedicine   |
| 701 <sup>†</sup> | Hypertension screening   |
| 702 <sup>†</sup> | Cholesterol screening  |
| 703 <sup>†</sup> | Mammogram  |
| 702 <sup>†</sup> | Pap test   |
| 705 <sup>†</sup> | FOBT-guaiac screening  |
| 706 <sup>†</sup> | Alcohol screening  |
| 707 <sup>†</sup> | Smoking cessation  |
| 708 <sup>†</sup> | Nutrition  |
| 709 <sup>†</sup> | Physical fitness/exercise counseling                             |
| 710 <sup>†</sup> | Influenza immunization   |
| 711 <sup>†</sup> | Injury counsel/seat belt usage                                   |
| 712 <sup>†</sup> | Hepatitis C registry patient                                     |
| 725              | Domiciliary outreach services                                    |
| 726              | Domiciliary aftercare – community                                |
| 727              | Domiciliary aftercare – VA                                       |
| 728              | Domiciliary admission screening services                         |
| 729              | Telephone/domiciliary  |
| 730              | Domiciliary – general care (Event Capture System [ECS] use only) |
| 731              | Prrtp general care   |
| 801              | In-VISN other VAMC 2-103   |
| 902              | CAT scan   |
| 903              | Radiation therapy  |
| 904              | Chemotherapy   |
| 905              | Ambulatory surgery services                                      |
| 906              | Blood/blood products trans                                       |
| 999              | Employee health  |

\* Most codes in the table can be used for both primary and secondary clinic stops. However, some (marked with a <sup>†</sup>) are to be used only for the secondary clinic stops and some are to be used only in pairs. All primary and secondary clinic stop code pairs are listed under the description of the appropriate code (e.g., 107473 under 107).

**HOMSTATE** can assume the following values:

| Value | Description    |
|-------|----------------|
| 1     | Alabama        |
| 2     | Alaska         |
| 4     | Arizona        |
| 5     | Arkansas       |
| 6     | California     |
| 8     | Colorado       |
| 9     | Connecticut    |
| 10    | Delaware       |
| 11    | Washington, DC |
| 12    | Florida        |
| 13    | Georgia        |
| 15    | Hawaii         |
| 16    | Idaho          |
| 17    | Illinois       |
| 18    | Indiana        |
| 19    | Iowa           |
| 20    | Kansas         |
| 21    | Kentucky       |
| 22    | Louisiana      |
| 23    | Maine          |
| 24    | Maryland       |
| 25    | Massachusetts  |
| 26    | Michigan       |
| 27    | Minnesota      |
| 28    | Mississippi    |
| 29    | Missouri       |
| 30    | Montana        |
| 31    | Nebraska       |
| 32    | Nevada         |
| 33    | New Hampshire  |
| 34    | New Jersey     |
| 35    | New Mexico     |
| 36    | New York       |
| 37    | North Carolina |
| 38    | North Dakota   |
| 39    | Ohio           |
| 40    | Oklahoma       |
| 41    | Oregon         |
| 42    | Pennsylvania   |
| 44    | Rhode Island   |
| 45    | South Carolina |

| Value | Description               |
|-------|---------------------------|
| 46    | South Dakota              |
| 47    | Tennessee                 |
| 48    | Texas                     |
| 49    | Utah                      |
| 50    | Vermont                   |
| 51    | Virginia                  |
| 53    | Washington                |
| 54    | West Virginia             |
| 55    | Wisconsin                 |
| 56    | Wyoming                   |
| 58    | Alberta                   |
| 59    | British Columbia          |
| 60    | US Samoa                  |
| 61    | Manitoba                  |
| 62    | New Brunswick             |
| 63    | Newfoundland              |
| 65    | Nova Scotia               |
| 66    | Guam                      |
| 71    | Midway Islands            |
| 72    | Puerto Rico               |
| 73    | Northwest Territories     |
| 74    | US Minor Outlying Islands |
| 75    | Ontario                   |
| 76    | US Caribbean              |
| 77    | Prince Edward Is          |
| 78    | Virgin Islands            |
| 80    | Quebec                    |
| 82    | Saskatchewan              |
| 83    | Yukon Territory           |
| 85    | AF Amer-Exc CAN           |
| 87    | AF, EUR, ME, CAN          |
| 88    | AF Pacific                |
| 90    | Foreign Country           |
| 91    | Canada & Mexico           |
| 93    | Europe                    |
| 96    | Philippines               |
| 99    | Unknown                   |

**POS** can assume the following values:

| Value | Description                                    |
|-------|--|
| A     | Army, active duty                              |
| B     | Navy or Marine, active duty                    |
| C     | Air Force, active duty                         |
| D     | Coast Guard, active duty                       |
| E     | Retired from uniformed forces                  |
| F     | Medical remedial enlistee                      |
| G     | Merchant seamen, U.S. Public Health Service    |
| H     | Other U.S. Public Health Service Beneficiaries |
| I     | Observation examination                        |
| J     | Office of workers compensation                 |
| K     | Job Corps or Peace Corps                       |
| L     | Railroad retirement                            |
| M     | Foreign government beneficiaries               |
| N     | Humanitarian (non-veteran)                     |
| O     | CHAMPUS restore                                |
| P     | Other reimbursement (non-veteran)              |
| Q     | Other federal dependant                        |
| R     | Donors (non-veteran)                           |
| S     | Special studies (non-veteran)                  |
| T     | Other (non-veteran)                            |
| U     | CHAMPVA, spouse or child                       |
| V     | CHAMPUS  |
| W     | Czechoslovakia or Poland                       |
| X     | Persian Gulf War                               |
| Y     | CAV / NPS                                      |
| Z     | Merchant Marine                                |
| 0     | Korean War                                     |
| 1     | World War I                                    |
| 2     | World War II                                   |
| 3     | Spanish-American War                           |
| 4     | Pre-Korean War                                 |
| 5     | Post-Korean War                                |
| 6     | Operation Desert Shield                        |
| 7     | Vietnam Era                                    |
| 8     | Post-Vietnam Era                               |
| 9     | Other or none                                  |

**PROV1 – PROV10** can assume the following values:

| Value  | Description  |
|--------|--|
| 010000 | Behavioral health and social services  |
| 010100 | Behavioral health and social services; social worker; clinical                                     |
| 010200 | Behavioral health and social services; counselor   |
| 010201 | Behavioral health and social services; counselor; addiction (substance use disorder)               |
| 010202 | Behavioral health and social services; marriage & family therapist                                 |
| 010203 | Behavioral health and social services; counselor; mental health                                    |
| 010204 | Behavioral health and social services; counselor; pastoral   |
| 010205 | Behavioral health and social services; counselor; professional                                     |
| 010206 | Behavioral health and social services; counselor; school   |
| 010300 | Behavioral health and social services; psychoanalyst   |
| 010301 | Behavioral health and social services; psychoanalyst; affiliate                                    |
| 010302 | Behavioral health and social services; psychoanalyst; associate                                    |
| 010400 | Behavioral health and social services; psychologist  |
| 010401 | Behavioral health and social services; psychologist; behavioral                                    |
| 010402 | Behavioral health and social services; neuropsychologist; clinical                                 |
| 010403 | Behavioral health and social services; psychologist; clinical                                      |
| 010404 | Behavioral health and social services; psychologist; counseling                                    |
| 010405 | Behavioral health and social services; psychologist; family  |
| 010406 | Behavioral health and social services; psychologist; forensic                                      |
| 010407 | Behavioral health and social services; psychologist; health  |
| 010408 | Behavioral health and social services; psychologist; school  |
| 010409 | Behavioral health and social services; psychologist; addiction (substance use disorder)            |
| 010410 | Behavioral health and social services; psychologist; adult development & aging                     |
| 010411 | Behavioral health and social services; psychologist; child, youth & family                         |
| 010412 | Behavioral health and social services; psychologist; educational                                   |
| 010413 | Behavioral health and social services; psychologist; exercise & sports                             |
| 010415 | Behavioral health and social services; psychologist; mental retardation & developmental disability |
| 010416 | Behavioral health and social services; psychologist; psychotherapy                                 |
| 010418 | Behavioral health and social services; psychologist; rehabilitation                                |
| 010419 | Behavioral health and social services; psychologist; women   |
| 010500 | Behavioral health and social services; social worker; school                                       |
| 010600 | Behavioral health and social services; social worker   |
| 020200 | Chiropractor; chiropractor; neurology  |
| 030000 | Dental services  |
| 030100 | Dental services; dental assistant  |
| 030200 | Dental services; dental hygienist  |
| 030300 | Dental services; dental resident   |
| 030400 | Dental services; dental laboratory technician  |

| Value  | Description   |
|--------|---|
| 030500 | Dental services; dentist  |
| 030501 | Dental services; dentist; endodontics   |
| 030502 | Dental services; dentist  |
| 030503 | Dental services; dentist; surgery, oral & maxillofacial                                   |
| 030504 | Dental services; dentist; surgery, oral & maxillofacial                                   |
| 030505 | Dental services; dentist; orthodontics  |
| 030506 | Dental services; dentist; pediatrics dentistry (pedodontics)                              |
| 030507 | Dental services; dentist; periodontics  |
| 030508 | Dental services; dentist; prosthodontics  |
| 030509 | Dental services; dentist; dental public health  |
| 040000 | Dietary and nutritional services  |
| 040100 | Dietary and nutritional services; dietary manager; dietary management                     |
| 040200 | Dietary and nutritional services; dietary and nutritional services; dietetic, technician  |
| 040300 | Dietary and nutritional services; nutritionist  |
| 040301 | Dietary and nutritional services; nutritionist; nutrition education                       |
| 040400 | Dietary and nutritional services; dietary and nutritional services; dietician, registered |
| 040401 | Dietary and nutritional services; dietitian, registered; nutrition, metabolic             |
| 040402 | Dietary and nutritional services; dietitian, registered; nutrition, pediatric             |
| 040403 | Dietary and nutritional services; dietitian, registered; nutrition, renal                 |
| 050100 | Emergency medical services; emergency medical technician, basic                           |
| 050200 | Emergency medical services; emergency medical technician, intermediate                    |
| 060000 | Eye and vision services   |
| 060100 | Eye and vision services; technician/technologist; contact lens fitter                     |
| 060200 | Eye and vision services; technician/technologist; contact lens                            |
| 060300 | Eye and vision services; technician/technologist; ocularist                               |
| 060400 | Eye and vision services; technician/technologist; ophthalmic medical assistant            |
| 060500 | Eye and vision services; technician/technologist; ophthalmic                              |
| 060600 | Eye and vision services; technician/technologist; optician                                |
| 060700 | Eye and vision services; optometric assistant/technician                                  |
| 060701 | Eye and vision services; technician/technologist; optometric assistant                    |
| 060702 | Eye and vision services; technician/technologist; optometric technician                   |
| 060800 | Eye and vision services; optometrist  |
| 060802 | Eye and vision services; optometrist; low vision  |
| 060803 | Eye and vision services; optometrist; occupational vision                                 |
| 060804 | Eye and vision services; optometrist; pediatric   |
| 060806 | Eye and vision services; optometrist; vision therapy                                      |
| 060900 | Eye and vision services; technician/technologist; orthoptist                              |
| 070000 | Nursing services  |
| 070101 | Nursing services; registered nurse; psychiatric/mental health, adult                      |
| 070105 | Nursing services; clinical specialist; medical  |
| 070200 | Nursing services; nurse anesthetist (CRNA)  |



| Value  | Description  |
|--------|--|
| 070300 | Nursing services; nurse massage therapist (NMT)                            |
| 070500 | Nursing services; nurse practitioner                                       |
| 070501 | Nursing services; nurse practitioner; adult nurse practitioner             |
| 070502 | Nursing services; nurse practitioner; family nurse practitioner            |
| 070503 | Nursing services; nurse practitioner; gerontological nurse practitioner    |
| 070600 | Nursing services; registered nurse; administrator                          |
| 070800 | Nursing services; other nursing services (non-RN's)                        |
| 070802 | Nursing services; other nursing services (non-RN's); graduate nurse        |
| 070804 | Nursing services; licensed practical nurse                                 |
| 070805 | Nursing services; licensed vocational nurse                                |
| 070806 | Nursing services; other nursing services (non-RN's); nurses aide           |
| 070900 | Nursing services; registered nurse   |
| 070901 | Nursing services; registered nurse; addiction (substance use disorder)     |
| 070902 | Nursing services; registered nurse; post                                   |
| 070903 | Nursing services; registered nurse; women health care, ambulatory          |
| 070904 | Nursing services; registered nurse; cardiac rehabilitation                 |
| 070905 | Nursing services; registered nurse; case management                        |
| 070906 | Nursing services; registered nurse; college health                         |
| 070907 | Nursing services; registered nurse; community health                       |
| 070908 | Nursing services; registered nurse; continence care                        |
| 070909 | Nursing services; registered nurse; critical care medicine                 |
| 070910 | Nursing services; registered nurse; diabetes educator                      |
| 070911 | Nursing services; registered nurse; emergency                              |
| 070912 | Nursing services; registered nurse; enterstomal therapy                    |
| 070914 | Nursing services; registered nurse; gastroenterology                       |
| 070915 | Nursing services; registered nurse; general practice                       |
| 070916 | Nursing services; registered nurse; gerontology                            |
| 070917 | Nursing services; registered nurse; hemodialysis                           |
| 070919 | Nursing services; registered nurse; home health                            |
| 070920 | Nursing services; registered nurse; hospice                                |
| 070921 | Nursing services; registered nurse; infection control                      |
| 070923 | Nursing services; registered nurse; intravenous therapy                    |
| 070924 | Nursing services; registered nurse; lactation consultant                   |
| 070926 | Nursing services; registered nurse; maternal newborn                       |
| 070927 | Nursing services; registered nurse; medical                                |
| 070928 | Nursing services; registered nurse; neonatal intensive care                |
| 070929 | Nursing services; registered nurse; nephrology                             |
| 070930 | Nursing services; registered nurse; neuroscience                           |
| 070931 | Nursing services; registered nurse; continuing education/staff development |
| 070932 | Nursing services; registered nurse; nutrition support                      |
| 070933 | Nursing services; registered nurse; occupational health                    |
| 070934 | Nursing services; registered nurse; oncology                               |
| 070935 | Nursing services; registered nurse; operating room                         |
| 070936 | Nursing services; registered nurse; ophthalmic                             |

| Value  | Description   |
|--------|---|
| 070937 | Nursing services; registered nurse; orthopaedic   |
| 070938 | Nursing services; registered nurse; ostomy care   |
| 070939 | Nursing services; registered nurse; otorhinolaryngology & head                          |
| 070940 | Nursing services; registered nurse; pain management                                     |
| 070944 | Nursing services; registered nurse; dialysis, peritoneal                                |
| 070945 | Nursing services; registered nurse; surgery, plastic                                    |
| 070946 | Nursing services; registered nurse; post  |
| 070947 | Nursing services; registered nurse; psychiatric/mental health                           |
| 070948 | Nursing services; registered nurse; rehabilitation                                      |
| 070949 | Nursing services; registered nurse; reproductive endocrinology/infertility              |
| 070950 | Nursing services; registered nurse; school  |
| 070951 | Nursing services; registered nurse; urology   |
| 070952 | Nursing services; registered nurse; wound care  |
| 080000 | Other services  |
| 080100 | Other services; acupuncturist   |
| 080200 | Other services; driver  |
| 080201 | Other services; driver; paid driver   |
| 080500 | Other services; contractor; home modifications  |
| 080700 | Other services; homeopath   |
| 081000 | Other services; midwife, lay (non-nurse)  |
| 081100 | Other services; naturopath  |
| 081300 | Other services; other (as specified)  |
| 081800 | Other services; legal medicine  |
| 081900 | Other services; specialist  |
| 081903 | Other services; specialist; research data abstracter/coder                              |
| 081904 | Other services; specialist; research study  |
| 081905 | Other services; specialist; prosthetics case management                                 |
| 082001 | Other services; veterinarian; medical research  |
| 090000 | Pharmacy services   |
| 090100 | Pharmacy services; pharmacist   |
| 090101 | Pharmacy services; pharmacist; general practice   |
| 090102 | Pharmacy services; pharmacist; nuclear pharmacy   |
| 090103 | Pharmacy services; pharmacist; nutrition support  |
| 090104 | Pharmacy services; pharmacist; pharmacotherapy  |
| 090105 | Pharmacy services; pharmacist; psychopharmacy   |
| 090200 | Pharmacy services; technician; pharmacy   |
| 100000 | Physician assistants & advanced practice nursing; physician assistant                   |
| 100100 | Physician assistants & advanced practice nursing; physician assistant; medical          |
| 100200 | Physician assistants & advanced practice nursing; physician assistant; surgical         |
| 100300 | Physician assistants & advanced practice nursing; clinical nurse specialist             |
| 100301 | Physician assistants & advanced practice nursing; clinical nurse specialist; adult care |

| Value  | Description   |
|--------|---|
| 100302 | Physician assistants & advanced practice nursing; clinical nurse specialist; adult health                               |
| 100303 | Physician assistants & advanced practice nursing; clinical nurse specialist; chronic care                               |
| 100304 | Physician assistants & advanced practice nursing; clinical nurse specialist; community health/public health             |
| 100305 | Physician assistants & advanced practice nursing; clinical nurse specialist; critical care medicine                     |
| 100306 | Physician assistants & advanced practice nursing; clinical nurse specialist; emergency                                  |
| 100308 | Physician assistants & advanced practice nursing; clinical nurse specialist; family health                              |
| 100309 | Physician assistants & advanced practice nursing; clinical nurse specialist; gerontology                                |
| 100311 | Physician assistants & advanced practice nursing; clinical nurse specialist; home health                                |
| 100312 | Physician assistants & advanced practice nursing; clinical nurse specialist; informatics                                |
| 100313 | Physician assistants & advanced practice nursing; clinical nurse specialist; long-term care                             |
| 100314 | Physician assistants & advanced practice nursing; clinical nurse specialist; medical                                    |
| 100317 | Physician assistants & advanced practice nursing; clinical nurse specialist; neuroscience                               |
| 100319 | Physician assistants & advanced practice nursing; clinical nurse specialist; oncology                                   |
| 100321 | Physician assistants & advanced practice nursing; clinical nurse specialist; pediatrics                                 |
| 100323 | Physician assistants & advanced practice nursing; clinical nurse specialist; perioperative                              |
| 100324 | Physician assistants & advanced practice nursing; clinical nurse specialist; psychiatric/mental health                  |
| 100325 | Physician assistants & advanced practice nursing; clinical nurse specialist; psychiatric/mental health, adult           |
| 100326 | Physician assistants & advanced practice nursing; clinical nurse specialist; psychiatric/mental health child & adult    |
| 100327 | Physician assistants & advanced practice nursing; clinical nurse specialist; psychiatric/mental health, child & adult   |
| 100328 | Physician assistants & advanced practice nursing; clinical nurse specialist; psychiatric/mental health, chronic illness |
| 100329 | Physician assistants & advanced practice nursing; clinical nurse specialist; psychiatric/mental health, communi         |
| 100330 | Physician assistants & advanced practice nursing; clinical nurse specialist; psychiatric/mental health, geropsy         |

| Value  | Description   |
|--------|---|
| 100331 | Physician assistants & advanced practice nursing; clinical nurse specialist; rehabilitation     |
| 100333 | Physician assistants & advanced practice nursing; clinical nurse specialist; school             |
| 100335 | Physician assistants & advanced practice nursing; clinical nurse specialist; women's health     |
| 100400 | Physician assistants & advanced practice nursing; midwife, certified                            |
| 100500 | Physician assistants & advanced practice nursing; nurse anesthetist, certified registered       |
| 100600 | Physician assistants & advanced practice nursing; nurse practitioner                            |
| 100601 | Physician assistants & advanced practice nursing; nurse practitioner; acute care                |
| 100602 | Physician assistants & advanced practice nursing; nurse practitioner; adult health              |
| 100603 | Physician assistants & advanced practice nursing; nurse practitioner; community health          |
| 100604 | Physician assistants & advanced practice nursing; nurse practitioner; critical care medicine    |
| 100605 | Physician assistants & advanced practice nursing; nurse practitioner; family                    |
| 100606 | Physician assistants & advanced practice nursing; nurse practitioner; gerontology               |
| 100607 | Physician assistants & advanced practice nursing; nurse practitioner; neonatal                  |
| 100608 | Physician assistants & advanced practice nursing; nurse practitioner; neonatal; critical care   |
| 100609 | Physician assistants & advanced practice nursing; nurse practitioner; obstetrics & gynecology   |
| 100610 | Physician assistants & advanced practice nursing; nurse practitioner; occupational health       |
| 100612 | Physician assistants & advanced practice nursing; nurse practitioner; pediatrics: acute care    |
| 100613 | Physician assistants & advanced practice nursing; nurse practitioner; pediatrics: critical care |
| 100614 | Physician assistants & advanced practice nursing; nurse practitioner; perinatal                 |
| 100615 | Physician assistants & advanced practice nursing; nurse practitioner; primary care              |
| 100616 | Physician assistants & advanced practice nursing; nurse practitioner; psychiatric/mental health |
| 100617 | Physician assistants & advanced practice nursing; nurse practitioner; school                    |
| 100618 | Physician assistants & advanced practice nursing; nurse practitioner; women's health            |
| 110000 | Physicians (MD and DO); physician/osteopath   |
| 110100 | Physicians (MD and DO); physician/osteopath; addiction medicine                                 |
| 110200 | Physicians (MD and DO); physician/osteopath; allergy  |

| Value  | Description  |
|--------|--|
| 110300 | Physicians (MD and DO); physician/osteopath; allergy & immunology                        |
| 110301 | Physicians (MD and DO); physician/osteopath; immunology, cli & lab, allergy & immunology |
| 110400 | Physicians (MD and DO); physician/osteopath; anesthesiology                              |
| 110401 | Physicians (MD and DO); physician/osteopath; critical care medicine; anesthesia          |
| 110500 | Physicians (MD and DO); physician/osteopath; body imaging                                |
| 110600 | Physicians (MD and DO); physician/osteopath; cardiology                                  |
| 110700 | Physicians (MD and DO); physician/osteopath; dermatology                                 |
| 110701 | Physicians (MD and DO); physician/osteopath; immunology, clin & lab dermatological       |
| 110702 | Physicians (MD and DO); physician/osteopath; dermatopathology; dermatology               |
| 110800 | Physicians (MD and DO); physician/osteopath; emergency medicine                          |
| 110801 | Physicians (MD and DO); physician/osteopath; toxicology, medical; emergency medicine     |
| 110803 | Physicians (MD and DO); physician/osteopath; sports medicine; emergency medicine         |
| 110900 | Physicians (MD and DO); physician/osteopath; family practice                             |
| 110901 | Physicians (MD and DO); physician/osteopath; geriatric medicine; family practice         |
| 110902 | Physicians (MD and DO); physician/osteopath; sports medicine; family practice            |
| 111000 | Physicians (MD and DO); physician/osteopath; general practice                            |
| 111100 | Physicians (MD and DO); physician/osteopath; geriatric medicine; general practice        |
| 111200 | Physicians (MD and DO); physician/osteopath; hematology & oncology                       |
| 111300 | Physicians (MD) and osteopaths (DO); intern, allopathic                                  |
| 111400 | Physicians (MD) and osteopaths (DO); intern, osteopathic                                 |
| 111500 | Physicians (MD and DO); physician/osteopath; internal medicine                           |
| 111501 | Physicians (MD and DO); physician/osteopath; adolescent medicine; internal medicine      |
| 111502 | Physicians (MD and DO); physician/osteopath; cardiac electrophysiology                   |
| 111503 | Physicians (MD and DO); physician/osteopath; cardiovascular disease                      |
| 111504 | Physicians (MD and DO); physician/osteopath; immunology, clin & lab internal medicine    |
| 111505 | Physicians (MD and DO); physician/osteopath; critical care medicine; internal medicine   |
| 111506 | Physicians (MD and DO); physician/osteopath; endocrinology, diabetes and metabolism      |
| 111507 | Physicians (MD and DO); physician/osteopath; gastroenterology                            |
| 111508 | Physicians (MD and DO); physician/osteopath; geriatric medicine; internal medicine       |

| Value  | Description   |
|--------|---|
| 111509 | Physicians (MD and DO); physician/osteopath; hematology; internal medicine                          |
| 111510 | Physicians (MD and DO); physician/osteopath; infectious disease                                     |
| 111511 | Physicians (MD and DO); physician/osteopath; oncology, medicine                                     |
| 111512 | Physicians (MD and DO); physician/osteopath; nephrology   |
| 111513 | Physicians (MD and DO); physician/osteopath; pulmonary disease                                      |
| 111514 | Physicians (MD and DO); physician/osteopath; pulmonary medicine                                     |
| 111515 | Physicians (MD and DO); physician/osteopath; rheumatology   |
| 111516 | Physicians (MD and DO); physician/osteopath; sports medicine; internal medicine                     |
| 111520 | Physicians (MD and DO); physician/osteopath; internal medicine; peripheral vascular                 |
| 111600 | Physicians (MD and DO); physician/osteopath; laboratory medicine                                    |
| 111800 | Physicians (MD and DO); physician/osteopath; medical diseases of the chest                          |
| 111900 | Physicians (MD and DO); physician/osteopath; genetics, medical                                      |
| 111903 | Physicians (MD and DO); physician/osteopath; cylogenetics, clinical                                 |
| 111904 | Physicians (MD and DO); physician/osteopath; genetics, clinical (MD)                                |
| 111905 | Physicians (MD and DO); physician/osteopath; genetics, clinical molecular                           |
| 112100 | Physicians (MD and DO); physician/osteopath; neurology  |
| 112200 | Physicians (MD and DO); physician/osteopath; neurology, child                                       |
| 112300 | Physicians (MD and DO); physician/osteopath; neuroradiology   |
| 112400 | Physicians (MD and DO); physician/osteopath; nuclear cardiology                                     |
| 112500 | Physicians (MD and DO); physician/osteopath; nuclear imaging & therapy                              |
| 112600 | Physicians (MD and DO); physician/osteopath; nuclear medicine                                       |
| 112601 | Physicians (MD and DO); physician/osteopath; nuclear medicine, in vivo & vitro                      |
| 112800 | Physicians (MD and DO); physician/osteopath; obstetrics   |
| 112900 | Physicians (MD and DO); physician/osteopath; obstetrics & gynecology                                |
| 112901 | Physicians (MD and DO); physician/osteopath; critical care medicine; ob/gyn                         |
| 112902 | Physicians (MD and DO); physician/osteopath; oncology, gynecologic                                  |
| 112903 | Physicians (MD and DO); physician/osteopath; maternal and fetal medicine                            |
| 112904 | Physicians (MD and DO); physician/osteopath; endocrinology, reproductive                            |
| 113000 | Physicians (MD and DO); physician/osteopath; ophthalmology  |
| 113100 | Physicians (MD and DO); physician/osteopath   |
| 113200 | Physicians (MD and DO); physician/osteopath; osteopathic manipulative medicine, special proficiency |
| 113300 | Physicians (MD and DO); physician/osteopath; otolaryngology   |
| 113301 | Physicians (MD and DO); physician/osteopath; otology/neurotology                                    |
| 113302 | Physicians (MD and DO); physician/osteopath; pediatric otolaryngology                               |
| 113400 | Physicians (MD and DO); physician/osteopath; otology  |
| 113500 | Physicians (MD and DO); physician/osteopath; otorhinolaryngology                                    |
| 113600 | Physicians (MD and DO); physician/osteopath; surgery, otorhinolaryngology & facial plastic surgery  |
| 113700 | Physicians (MD and DO); physician/osteopath; pathology  |

| Value  | Description  |
|--------|--|
| 113701 | Physicians (MD and DO); physician/osteopath; pathology, anatomic & clinical                |
| 113702 | Physicians (MD and DO); physician/osteopath; pathology, anatomic                           |
| 113703 | Physicians (MD and DO); physician/osteopath; pathology, anatomic & laboratory medicine     |
| 113704 | Physicians (MD and DO); physician/osteopath; blood banking/transfusion medicine            |
| 113705 | Physicians (MD and DO); physician/osteopath; pathology, chemical                           |
| 113706 | Physicians (MD and DO); physician/osteopath; pathology, clinical                           |
| 113707 | Physicians (MD and DO); physician/osteopath; cytopathology                                 |
| 113708 | Physicians (MD and DO); physician/osteopath; dermatopathology                              |
| 113709 | Physicians (MD and DO); physician/osteopath; forensic pathology                            |
| 113710 | Physicians (MD and DO); physician/osteopath; hematology: pathology                         |
| 113711 | Physicians (MD and DO); physician/osteopath; immunopathology                               |
| 113712 | Physicians (MD and DO); physician/osteopath; medical microbiology                          |
| 113713 | Physicians (MD and DO); physician/osteopath; neuropathology                                |
| 114000 | Physicians (MD and DO); physician/osteopath; pediatric neurology                           |
| 114100 | Physicians (MD and DO); physician/osteopath; psychiatry, pediatric                         |
| 114200 | Physicians (MD and DO); physician/osteopath; pediatric                                     |
| 114205 | Physicians (MD and DO); physician/osteopath; pediatric cardiology                          |
| 114207 | Physicians (MD and DO); physician/osteopath; pediatric emergency medicine                  |
| 114210 | Physicians (MD and DO); physician/osteopath; pediatric hematology and oncology             |
| 114212 | Physicians (MD and DO); physician/osteopath; pediatric nephrology                          |
| 114216 | Physicians (MD and DO); physician/osteopath; sports medicine: pediatrics                   |
| 114300 | Physicians (MD and DO); physician/osteopath; pediatric radiology                           |
| 114400 | Physicians (MD and DO); physician/osteopath; pharmacology, clinical                        |
| 114500 | Physicians (MD and DO); physician/osteopath; physical medicine & rehabilitation            |
| 114600 | Physicians (MD and DO); physician/osteopath; preventive medicine, general                  |
| 114601 | Physicians (MD and DO); physician/osteopath; aerospace medicine; preventive medicine       |
| 114602 | Physicians (MD and DO); physician/osteopath; toxicology, medical; preventive medicine      |
| 114603 | Physicians (MD and DO); physician/osteopath; occupational medicine; preventive medicine    |
| 114604 | Physicians (MD and DO); physician/osteopath; occupational medicine                         |
| 114605 | Physicians (MD and DO); physician/osteopath; public health and general preventive medicine |
| 114800 | Physicians (MD and DO); physician/osteopath; psychiatry & neurology                        |
| 114801 | Physicians (MD and DO); physician/osteopath; psychiatry addiction                          |
| 114802 | Physicians (MD and DO); physician/osteopath; psychiatry child & adolescent                 |
| 114803 | Physicians (MD and DO); physician/osteopath; neurophysiology clinical                      |

| Value  | Description  |
|--------|--|
| 114804 | Physicians (MD and DO); physician/osteopath; forensic psychiatry                           |
| 114805 | Physicians (MD and DO); physician/osteopath; psychiatry geriatric                          |
| 114806 | Physicians (MD) and osteopaths (DO); psychiatry and neurology; neurology                   |
| 114808 | Physicians (MD and DO); physician/osteopath; psychiatry                                    |
| 114900 | Physicians (MD and DO); physician/osteopath; psychiatry, child                             |
| 115000 | Physicians (MD) and osteopaths (DO); psychoanalysis  |
| 115100 | Physicians (MD and DO); physician/osteopath; radiation therapy                             |
| 115200 | Physicians (MD and DO); physician/osteopath; pathology, radioisotopic                      |
| 115300 | Physicians (MD and DO); physician/osteopath; radiology                                     |
| 115301 | Physicians (MD and DO); physician/osteopath; radiology, diagnostic                         |
| 115302 | Physicians (MD and DO); physician/osteopath; nuclear radiology                             |
| 115304 | Physicians (MD and DO); physician/osteopath; radiation oncology                            |
| 115305 | Physicians (MD and DO); physician/osteopath; radiological physics                          |
| 115306 | Physicians (MD) and osteopaths (DO); radiology; radiology                                  |
| 115307 | Physicians (MD and DO); physician/osteopath; radiology, vascular & interventional          |
| 115400 | Physicians (MD and DO); physician/osteopath; rehabilitation medicine                       |
| 115500 | Physicians (MD) and osteopaths (DO); resident, allopathic                                  |
| 115600 | Physicians (MD) and osteopaths (DO); resident, osteopathic                                 |
| 115700 | Physicians (MD) and osteopaths (DO); surgery   |
| 115701 | Physicians (MD and DO); physician/osteopath; surgery, general vascular                     |
| 115702 | Physicians (MD) and osteopaths (DO); surgery; oncology                                     |
| 115704 | Physicians (MD and DO); physician/osteopath; surgery, hand                                 |
| 115705 | Physicians (MD and DO); physician/osteopath; surgical critical care; surgery               |
| 115800 | Physicians (MD and DO); physician/osteopath; surgery, cardiovascular                       |
| 115900 | Physicians (MD and DO); physician/osteopath; surgery, colon & rectal surgery               |
| 116000 | Physicians (MD and DO); physician/osteopath; dermatology micrographic surgery              |
| 116100 | Physicians (MD and DO); physician/osteopath; surgery, general                              |
| 116200 | Physicians (MD and DO); physician/osteopath; surgery, head & neck                          |
| 116300 | Physicians (MD) and osteopaths (DO); surgery, maxillofacial                                |
| 116400 | Physicians (MD and DO); physician/osteopath; surgery, neurological                         |
| 116500 | Physicians (MD and DO); physician/osteopath; surgery, obstetric & gynecologic              |
| 116600 | Physicians (MD and DO); physician/osteopath; surgery, orthopedic                           |
| 116700 | Physicians (MD and DO); physician/osteopath; surgery, orthopedic, adult reconstructive     |
| 116800 | Physicians (MD and DO); physician/osteopath; surgery, hand; orthopedic surgery             |
| 116900 | Physicians (MD and DO); physician/osteopath; surgery, orthopedic, musculoskeletal oncology |
| 117000 | Physicians (MD and DO); physician/osteopath; surgery, orthopedic, pediatric                |
| 117100 | Physicians (MD and DO); physician/osteopath; surgery, orthopedic, spine                    |



| Value  | Description   |
|--------|---|
| 117400 | Physicians (MD and DO); physician/osteopath; surgery, plastic                         |
| 117401 | Physicians (MD and DO); physician/osteopath; surgery, hand; plastic surgery           |
| 117500 | Physicians (MD and DO); physician/osteopath; surgery, plastic & reconstructive        |
| 117700 | Physicians (MD and DO); physician/osteopath; surgery, thoracic                        |
| 117800 | Physicians (MD and DO); physician/osteopath; surgery, thoracic cardiovascular         |
| 117900 | Physicians (MD and DO); physician/osteopath; surgery, traumatic                       |
| 118000 | Physicians (MD and DO); physician/osteopath; surgery, urological                      |
| 118100 | Physicians (MD and DO); physician/osteopath; ultrasound, diagnostic                   |
| 118200 | Physicians (MD and DO); physician/osteopath; urology                                  |
| 118302 | Physicians (MD and DO); physician/osteopath; adolescent medicine; family practitioner |
| 118304 | Physicians (MD and DO); physician/osteopath; allergy & immunology; internal medicine  |
| 118307 | Physicians (MD and DO); physician/osteopath; age specific, greater than 1 year old    |
| 118310 | Physicians (MD and DO); physician/osteopath; cardiac electrophysiology, clinical      |
| 118313 | Physicians (MD and DO); physician/osteopath; endocrinology                            |
| 118314 | Physicians (MD and DO); physician/osteopath; geriatric medicine                       |
| 118315 | Physicians (MD and DO); physician/osteopath; gynecology                               |
| 118316 | Physicians (MD and DO); physician/osteopath; hematology                               |
| 118318 | Physicians (MD and DO); physician/osteopath; immunology, dermatological               |
| 118325 | Physicians (MD and DO); physician/osteopath; pain medicine                            |
| 118326 | Physicians (MD and DO); physician/osteopath; radiology, angiography & interventional  |
| 118327 | Physicians (MD and DO); physician/osteopath; radiology, therapeutic                   |
| 118331 | Physicians (MD and DO); physician/osteopath; roentgenology, diagnostic                |
| 118337 | Physicians (MD and DO); physician/osteopath; occupational medicine                    |
| 118339 | Physicians (MD and DO); physician/osteopath; otorhinolaryngology & head               |
| 118340 | Physicians (MD and DO); physician/osteopath; otorhinolaryngology & head               |
| 120000 | Podiatric medicine and surgery  |
| 120100 | Podiatric medicine and surgery services; assistant, podiatric                         |
| 120200 | Podiatric medicine and surgery services; podiatrist                                   |
| 120202 | Podiatric medicine and surgery; podiatrist; foot and ankle orthopaedics/biomechanics  |
| 120204 | Podiatric medicine and surgery services; podiatrist; surgery, foot & ankle            |
| 120205 | Podiatric medicine and surgery services; podiatrist; surgery, foot                    |
| 120206 | Podiatric medicine and surgery services; podiatrist; general practice                 |
| 120208 | Podiatric medicine and surgery; podiatrist; podiatric orthopedics                     |
| 120209 | Podiatric medicine and surgery services; podiatrist; primary podiatric medicine       |
| 130000 | Respiratory, rehabilitative and restorative s   |

| Value  | Description   |
|--------|---|
| 130100 | Respiratory, rehabilitative and restorative services; occupational therapist                                    |
| 130101 | Respiratory, rehabilitative and restorative services; occupational therapist assistant                          |
| 130102 | Respiratory, rehabilitative and restorative services; occupational therapist; hand                              |
| 130103 | Respiratory, rehabilitative and restorative services; occupational therapist; registered occupational therapist |
| 130104 | Respiratory, rehabilitative and restorative services; occupational therapist; case management                   |
| 130105 | Respiratory, rehabilitative and restorative services; occupational therapist; ergonomics                        |
| 130106 | Respiratory, rehabilitative and restorative services; occupational therapist; human factors                     |
| 130107 | Respiratory, rehabilitative and restorative services; occupational therapist; neurorehabilitation               |
| 130109 | Respiratory, rehabilitative and restorative services; occupational therapist; rehabilitation, driver            |
| 130200 | Respiratory, rehabilitative and restorative services; other   |
| 130201 | Respiratory, rehabilitative and restorative services; art therapist   |
| 130202 | Respiratory, rehabilitative and restorative services; specialist/technologist; athletic trainer                 |
| 130204 | Respiratory, rehabilitative and restorative services; massage therapist   |
| 130205 | Respiratory, rehabilitative and restorative services; music therapist   |
| 130206 | Respiratory, rehabilitative and restorative services; specialist/technologist; rehabilitation, blind            |
| 130207 | Respiratory, rehabilitative and restorative services; orthotics/prosthetics fitter                              |
| 130208 | Respiratory, rehabilitative and restorative services; other; orthotist  |
| 130209 | Respiratory, rehabilitative and restorative services; recreation therapist                                      |
| 130210 | Respiratory, rehabilitative and restorative services; other; rehabilitation coordinator                         |
| 130212 | Respiratory, rehabilitative and restorative services; other; vocational specialist                              |
| 130213 | Respiratory, rehabilitative and restorative services; orthotist   |
| 130214 | Respiratory, rehabilitative and restorative services; prosthetist   |
| 130300 | Respiratory, rehabilitative and restorative services; physical therapist  |
| 130301 | Respiratory, rehabilitative and restorative services; physical therapist; cardiopulmonary                       |
| 130302 | Respiratory, rehabilitative and restorative services; physical therapist; electrophysiology, clinical           |
| 130303 | Respiratory, rehabilitative and restorative services; physical therapist; geriatric                             |
| 130304 | Respiratory, rehabilitative and restorative services; physical therapist; hand                                  |
| 130305 | Respiratory, rehabilitative and restorative services; physical therapist; neurology                             |

| Value  | Description   |
|--------|---|
| 130306 | Respiratory, rehabilitative and restorative services; physical therapist; orthopaedic   |
| 130307 | Respiratory, rehabilitative and restorative services; physical therapist; pediatrics  |
| 130308 | Respiratory, rehabilitative and restorative services; physical therapist assistant  |
| 130309 | Respiratory, rehabilitative and restorative services; physical therapist; sports  |
| 130310 | Respiratory, rehabilitative and restorative services; physical therapist; case management                                       |
| 130311 | Respiratory, rehabilitative and restorative services; physical therapist; ergonomics  |
| 130400 | Respiratory, rehabilitative and restorative services; rehabilitation practitioner   |
| 130404 | Respiratory, rehabilitative and restorative services; rehabilitation counselor  |
| 130405 | Respiratory, rehabilitative and restorative services; rehabilitation practitioner; rehabilitation intern                        |
| 130406 | Respiratory, rehabilitative and restorative services; rehabilitation counselor; assistive technology practitioner               |
| 130407 | Respiratory, rehabilitative and restorative services; rehabilitation counselor; assistive technology supplier                   |
| 130501 | Respiratory, rehabilitative and restorative services; respiratory care practitioner; certified respiratory therapy technologist |
| 130504 | Respiratory, rehabilitative and restorative services; respiratory care practitioner; inhalation therapist                       |
| 130506 | Respiratory, rehabilitative and restorative services; pulmonary function technologist   |
| 130507 | Respiratory, rehabilitative and restorative services; respiratory care practitioner; registered respiratory therapist           |
| 130508 | Respiratory, rehabilitative and restorative services; respiratory therapist   |
| 130511 | Respiratory, rehabilitative and restorative services; respiratory therapist; perinatal  |
| 130513 | Respiratory, rehabilitative and restorative services; respiratory therapist   |
| 130600 | Respiratory, rehabilitative and restorative services; kinesiotherapist  |
| 140000 | Speech, language and hearing services   |
| 140100 | Speech, language and hearing services; audiologist  |
| 140101 | Speech, language and hearing services; audiologist; assistive technology practitioner   |
| 140102 | Speech, language and hearing services; audiologist; assistive technology supplier   |
| 140200 | Speech, language and hearing services; audiologist  |
| 140300 | Speech, language and hearing services; hearing instrument specialist  |
| 140400 | Speech, language and hearing services; speech and hearing therapist   |
| 140500 | Speech, language and hearing services; speech   |
| 140600 | Speech, language and hearing services; specialist/technologist; speech/language assistant                                       |

| Value  | Description  |
|--------|--|
| 140701 | Speech, language and hearing services; specialist/technologist; audiology assistant                                    |
| 150000 | Technologists, technicians & other technical   |
| 150100 | Technologists, technicians & other technical; clinical pathology   |
| 150104 | Technologists, technicians & other technical; specialist/technologist, pathology; laboratory management, diplomate     |
| 150105 | Technologists, technicians & other technical; specialist/technologist, pathology; hemapheresis practitioner            |
| 150106 | Technologists, technicians & other technical; technician, pathology; histology   |
| 150107 | Technologists, technicians & other technical; specialist/technologist, pathology; histology                            |
| 150108 | Technologists, technicians & other technical; technician, pathology; medical laboratory                                |
| 150109 | Technologists, technicians & other technical; specialist/technologist, pathology; medical technologist                 |
| 150110 | Technologists, technicians & other technical; technician, pathology; phlebotomy  |
| 150111 | Technologists, technicians & other technical; specialist/technologist, pathology; blood banking                        |
| 150112 | Technologists, technicians & other technical; specialist/technologist, pathology; chemistry                            |
| 150113 | Technologists, technicians & other technical; specialist/technologist, pathology; cytotechnology                       |
| 150114 | Technologists, technicians & other technical; specialist/technologist, pathology; hematology                           |
| 150115 | Technologists, technicians & other technical; specialist/technologist, pathology; microbiology                         |
| 150119 | Technologists, technicians & other technical; specialist/technologist, pathology; immunology                           |
| 150200 | Technologists, technicians & other technical; clinical services  |
| 150201 | Technologists, technicians & other technical; specialist/technologist, pathology; biomedical engineering               |
| 150202 | Technologists, technicians & other technical; technician, other; biomedical engineering                                |
| 150203 | Technologists, technicians & other technical; specialist/technologist, cardiology; cardiovascular: invasive technology |
| 150204 | Technologists, technicians & other technical; specialist/technologist, cardiology; cardiology                          |
| 150205 | Technologists, technicians & other technical; specialist/technologist, cardiology; cardiopulmonary                     |
| 150206 | Technologists, technicians & other technical; clinical services; cardiothoracic technician                             |
| 150207 | Technologists, technicians & other technical; specialist/technologist, cardiology; perfusionist                        |

| Value  | Description   |
|--------|---|
| 150208 | Technologists, technicians & other technical; technician, cardiology; ECG   |
| 150209 | Technologists, technicians & other technical; technician, other; EEG  |
| 150210 | Technologists, technicians & other technical; specialist/technologist, other; EEG                                 |
| 150211 | Technologists, technicians & other technical; specialist/technologist, other; electroneurodiagnostic              |
| 150212 | Technologists, technicians & other technical; specialist/technologist, other; graphics methods                    |
| 150214 | Technologists, technicians & other technical; specialist/technologist, other; geneticist, medical (PhD)           |
| 150215 | Technologists, technicians & other technical; clinical services; pulmonary clinician                              |
| 150216 | Technologists, technicians & other technical; technician, other; renal dialysis                                   |
| 150218 | Technologists, technicians & other technical; specialist/technologist, other; surgical                            |
| 150219 | Technologists, technicians & other technical; clinical services; ultrasound technologist                          |
| 150220 | Technologists, technicians & other technical; clinical services   |
| 150221 | Technologists, technicians & other technical; clinical services   |
| 150300 | Technologists, technicians & other technical; radiologic sciences   |
| 150301 | Technologists, technicians & other technical; radiologic technologist; cardiovascular                             |
| 150302 | Technologists, technicians & other technical; radiologic sciences; computed tomography technologist               |
| 150303 | Technologists, technicians & other technical; technician, other; darkroom   |
| 150304 | Technologists, technicians & other technical; specialist/technologist, cardiology; sonography, diagnostic cardiac |
| 150305 | Technologists, technicians & other technical; radiologic sciences; diagnostic imaging operation tech              |
| 150306 | Technologists, technicians & other technical; radiologic technologist; sonography, diagnostic medical             |
| 150307 | Technologists, technicians & other technical; radiologic sciences; magnetic resonance technologist                |
| 150308 | Technologists, technicians & other technical; radiologic technologist; mammography; radiography                   |
| 150310 | Technologists, technicians & other technical; radiologic technologist; nuclear medicine technology                |
| 150311 | Technologists, technicians & other technical; radiologic technologist; radiation physicist                        |
| 150312 | Technologists, technicians & other technical; radiologic technologist; radiation therapy                          |
| 150313 | Technologists, technicians & other technical; radiologic technologist; radiographer                               |

| Value  | Description   |
|--------|---|
| 150314 | Technologists, technicians & other technical; radiologic sciences; radiologic technician                                    |
| 150315 | Technologists, technicians & other technical; radiologic sciences; radiologic technologist                                  |
| 150316 | Technologists, technicians & other technical; radiologic technologist; dosimetrist, medical                                 |
| 150319 | Technologists, technicians & other technical; radiologic technologist; computed tomography: radiography                     |
| 150320 | Technologists, technicians & other technical; radiologic technologist; magnetic resonance imaging (MRI):r                   |
| 150321 | Technologists, technicians & other technical; radiologic technologist; magnetic resonance imaging (MRI):r                   |
| 150323 | Technologists, technicians & other technical; radiologic technologist; quality management; radiographer                     |
| 150324 | Technologists, technicians & other technical; radiologic technologist   |
| 150403 | Technologists, technicians & other technical; specialist/technologist, other; biomedical photographer                       |
| 150406 | Technologists, technicians & other technical; specialist/technologist, other; art, medical                                  |
| 150410 | Technologists, technicians & other technical; research; research study specialist   |
| 150414 | Technologists, technicians & other technical; technician, other; veterinary   |
| 150701 | Technologists, technicians & other technical; specialist/technologist, cardiology; cardiovascular, noninvasive technologist |
| 150702 | Technologists, technicians & other technical; specialist/technologist, cardiology; cardiovascular vascular technologist     |
| 150703 | Technologists, technicians & other technical; specialist/technologist, cardiology; vascular                                 |
| 150801 | Technologists, technicians & other technical; technician, cardiology; cardiographic   |
| 150901 | Technologists, technicians & other technical; specialist/technologist, health information; coding specialist, hospital      |
| 150902 | Technologists, technicians & other technical; specialist/technologist, health information; coding specialist, physician     |
| 150903 | Technologists, technicians & other technical; specialist/technologist, health information; registered record administrator  |
| 151000 | Technologists, technicians & other technical; specialist/technologist, other  |
| 151100 | Technologists, technicians & other technical; technician, health information  |
| 151101 | Technologists, technicians & other technical; technician, health information; assistant record technician                   |
| 160101 | Physicians (other roles); physician/osteopath; laboratory service provider  |
| 170100 | Nursing service related; Christian science practitioner/nurse   |
| 170200 | Nursing service related; home health aide   |
| 170300 | Nursing service related; homemaker  |

| Value  | Description  |
|--------|--|
| 170400 | Nursing service related; nurses aide                         |
| 170500 | Nursing service related; nursing home administrator          |
| 170600 | Nursing service related; technician; personal care attendant |
| 170601 | Nursing service related; technician                          |

**STA3N** can assume the following values:

| Value | Description                       |
|-------|-----------------------------------|
| 402   | Togus                             |
| 405   | White River Junction              |
| 436   | Fort Harrison, Montana HCS        |
| 437   | Fargo                             |
| 438   | Sioux Falls                       |
| 442   | Cheyenne                          |
| 452   | VAMC Wichita, KS                  |
| 459   | Honolulu                          |
| 460   | Wilmington                        |
| 501   | New Mexico HCS                    |
| 502   | Alexandria                        |
| 503   | James E. Van Zandt VAMC (Altoona) |
| 504   | Amarillo HCS                      |
| 506   | Ann Arbor HCS                     |
| 508   | Decatur, Atlanta                  |
| 509   | Augusta                           |
| 512   | Baltimore                         |
| 515   | Battle Creek                      |
| 516   | Bay Pines                         |
| 517   | Beckley                           |
| 518   | Bedford                           |
| 519   | West Texas HCS                    |
| 520   | Gulf Coast HCS                    |
| 521   | Birmingham                        |
| 523   | VA Boston HCS – Boston Div.       |
| 526   | Bronx                             |
| 528   | Upstate New York HCS              |
| 529   | Butler                            |
| 531   | Boise                             |
| 534   | Charleston                        |
| 537   | Chicago HCS                       |
| 538   | Chillicothe                       |
| 539   | Cincinnati                        |
| 540   | Clarksburg                        |
| 541   | Cleveland – Wade Park             |
| 542   | Coatesville                       |
| 544   | Columbia SC                       |
| 546   | Miami                             |
| 548   | W Palm Beach                      |
| 549   | Dallas VAMC                       |



| Value | Description                                     |
|-------|---|
| 550   | Illiana HCS (Danville)                          |
| 552   | Dayton  |
| 553   | Detroit (John D. Dingell)                       |
| 554   | Denver, Eastern Colorado HCS                    |
| 556   | North Chicago IL                                |
| 557   | Dublin  |
| 558   | Durham  |
| 561   | East Orange, New Jersey HCS                     |
| 562   | Erie  |
| 564   | Fayetteville AR                                 |
| 565   | Fayetteville NC                                 |
| 568   | Fort Meade                                      |
| 570   | Fresno, Central California HCS                  |
| 573   | North Florida / South Georgia HCS – Gainesville |
| 575   | Grand Junction                                  |
| 578   | Hines   |
| 580   | Houston   |
| 581   | Huntington                                      |
| 583   | Indianapolis                                    |
| 585   | Iron Mountain MI                                |
| 586   | Jackson, G. V. (Sonny) Montgomery VAMC          |
| 589   | VAMC Heartland, Kansas City                     |
| 590   | Hampton   |
| 593   | Las Vegas, Southern Nevada HCS                  |
| 595   | Lebanon   |
| 596   | Lexington – Leestown                            |
| 598   | Little Rock, Central AR. Veterans HCS LR        |
| 600   | Long Beach HCS                                  |
| 603   | Louisville                                      |
| 605   | Loma Linda VAMC                                 |
| 607   | Madison WI                                      |
| 608   | Manchester                                      |
| 610   | N. Indiana HCS – Marion                         |
| 612   | NCHC Martinez                                   |
| 613   | Martinsburg                                     |
| 614   | Memphis   |
| 618   | Minneapolis                                     |
| 619   | Montgomery                                      |
| 620   | Montrose, Hudson Valley HCS                     |
| 621   | Mountain Home                                   |
| 623   | Muskogee  |
| 626   | Middle Tennessee HCS                            |

| Value | Description                                    |
|-------|--|
| 629   | New Orleans                                    |
| 630   | New York Harbor HCS – NY Div.                  |
| 631   | Northampton                                    |
| 632   | Northport                                      |
| 635   | Oklahoma City                                  |
| 636   | Omaha Division – Central Plains Health Network |
| 637   | Asheville – Oteen                              |
| 640   | Palo Alto – Palo Alto                          |
| 642   | Philadelphia                                   |
| 644   | Phoenix  |
| 646   | Pittsburgh HCS – University Drive              |
| 648   | Portland                                       |
| 649   | Northern Arizona HCS                           |
| 650   | Providence                                     |
| 652   | Richmond                                       |
| 653   | Roseburg HCS                                   |
| 654   | Sierra Nevada HCS                              |
| 655   | Saginaw  |
| 656   | St Cloud                                       |
| 657   | St Louis – John Cochran                        |
| 658   | Salem  |
| 659   | W.G. (Bill) Hefner Salisbury VAMC              |
| 660   | Salt Lake City HCS                             |
| 662   | San Francisco                                  |
| 663   | Seattle, Puget Sound HCS                       |
| 664   | San Diego HCS                                  |
| 666   | Sheridan                                       |
| 667   | Shreveport, Overton Brooks VAMC                |
| 668   | Spokane  |
| 671   | San Antonio VAMC                               |
| 672   | San Juan                                       |
| 673   | Tampa  |
| 674   | Temple VAMC                                    |
| 676   | Tomah  |
| 678   | S. Arizona HCS                                 |
| 679   | Tuscaloosa                                     |
| 687   | Walla Walla                                    |
| 688   | Washington                                     |
| 689   | West Haven                                     |
| 691   | Greater Los Angeles HCS                        |
| 693   | Wilkes Barre                                   |
| 695   | Milwaukee WI                                   |

## Appendix D: Austin Automation Center Information

### Requesting Access to the Datasets

To gain access to the Medical SAS Datasets, an approved ACRS (Automated Customer Registration System) TIME SHARING REQUEST FORM (Form 9957) specifying the appropriate Functional Task Code(s) for the dataset(s) requested must be submitted to the Austin Automation Center (AAC). This is typically done through the Information Resources Management (IRM) department at your site. The AAC can provide you with the IRM contact person at your site. A copy of this form can be obtained through the VIREC web site at <http://www.virec.research.med.va.gov/TOOLKIT/FORM9957.pdf> or through the VA at <http://www.va.gov/forms/dot/VAF9957.dot>.

### Batch Job Service Level Categories

When submitting programs (jobs) in the IBM OS/390 mainframe environment at the Austin Automation Center (AAC), an appropriate service level code is required to allocate the system resources required to complete the job. The AAC currently defines four categories of batch job service and strives to provide corresponding job turnaround, from submission to completion, as shown. An “S322” error occurs when a job exceeds the Central Processing Unit (CPU) time for the service level coded. The number of tape drives and CPU time expected can be determined from step statistics messages. The table below describes the four service level categories and their associated system resource capacity levels. Specific instruction on how to code the batch service level in a job is described in the Job Control Language (JCL) example below.

| Service Level Code | CPU Seconds | Tape Drives | Turnaround Time Goal |
|--------------------|-------------|-------------|----------------------|
| 6                  | 0-10        | 0           | 15 minutes           |
| 7                  | 10-50       | 0           | 30 minutes           |
| 8                  | 0-600       | 1-2         | 2 hours              |
| 9                  | over 600    | over 2      | 6 hours              |

## JCL Example

```
(1) //yourIDx JOB XXXUNKA $n$ ,yourID,MSGCLASS=I,NOTIFY=&SYSUID
(2) //step1 EXEC SAS,WORK='100,100'
(3) //libref DD DSN=SAS-dataset-name,DISP=SHR
(3) //LIBRARY DD DSN=MDPPRD.MDP.FMTLIB6,DISP=SHR
(3) //SYSIN DD *
```

### (1) Job card:

- **yourIDx** – Time Sharing Option (TSO) account user ID plus a one-character job identifier (**x** (A–Z)) (maximum 8 characters)
- **XXXUNKA $n$**  – Batch job service level category (**n**, (6–9) (described in section above))
- **MSGCLASS=x** – supplies the SYSOUT class for the job’s system messages (“I”=24 hour retention period, “R”=5 day retention period)
- **NOTIFY=&SYSUID** – notifies user ID when job has completed

### (2) Execution statement:

- **step1** – job step name (maximum 8 characters)
- **EXEC SAS** – executes SAS software
- **WORK='p,s'** – primary and secondary work space to be allocated during step execution

### (3) Data Definition (DD) statements

- **Libref** – library reference defining a file to be read (maximum 8 characters)
- **DSN= SAS-dataset-name** – defines a SAS dataset
- **DISP=SHR** – allocates dataset as “shared” or read-only
- **LIBRARY DD DSN=MDPPRD.MDP.FMTLIB6** – allocates dataset containing library of permanent SAS formats attached to the variables in the SAS datasets
- **SYSIN DD \*** – indicates that SAS program statements follow

## Other Sources of Information

*Guide For First Time Users of VA Austin Automation Center (AAC)*. Available at:

<http://www.virec.research.med.va.gov/INSIGHTS/VOL002NO001.PDF>. Suggested Citation:

Cowper DC. *Guide for First Time Users of VA Austin Automation Center (AAC)*. Hines, IL: VA Information Resource Center; 2001. *VIREC In4sights*, Vol. 2, No. 1. (PDF)

The Austin Operations Information intranet site provides tutorials on dataset management, Time Sharing Option/Interactive System Productivity Facility (TSO / ISPF), Job Control Language (JCL), Job Entry System ((E)JES) and File Transfer Protocol (FTP) utilities. Available at: [http://vaww.aac.va.gov/operations/austin\\_info.asp](http://vaww.aac.va.gov/operations/austin_info.asp).

## AAC Contact Information

AAC Help Desk: 1-512-326-6780

Internet website: <http://www.aac.va.gov/>

Intranet website: <http://vaww.aac.va.gov/default.asp>

## Appendix E: Selected Bibliography

This bibliography of articles relative to inpatient data within the Austin Automation Center (AAC) database was constructed using the following strategy.

A PubMed (<http://www.ncbi.nih.gov/entrez/query.fcgi>) search for text words was conducted on 11/22/02, with 468 references resulting from using the parameters of:

(veteran OR veterans) AND (data OR database OR databases) AND ((inpatient OR inpatients OR PTF) OR (outpatient OR outpatients or OPC))

Results were imported into Reference Manager. Each abstract was read and a qualitative judgment was made concerning relevance to the Medical SAS Datasets using the following criteria:

Does the abstract refer to “inpatient”, “outpatient”, or “administrative” data?

Does the abstract refer to “Austin Automation Center” or “AAC” data?

If the answer to both questions was yes, the article was classified as relevant to the Medical SAS Datasets, netting a total of 142 articles.

Relevant articles were retrieved and the full text read to confirm relevance to the Outpatient Medical SAS Datasets. From this procedure, 86 articles were found to be relevant.

These 77 relevant articles are sorted by year and alphabetized within each year. A PubMed link to the abstract is provided for each citation.

A few articles that we know are relevant but were not identified by the PubMed search are also listed.

### *Year 2002*

Best WR, Khuri SF, Phelan M, Hur K, Henderson WG, Demakis JG et al. Identifying patient preoperative risk factors and postoperative adverse events in administrative databases: results from the Department of Veterans Affairs National Surgical Quality Improvement Program. *J Am Coll Surg* 2002; 194(3):257-266. ([Abstract](#))

Buchner AM, Sonnenberg A. Epidemiology of Clostridium difficile infection in a large population of hospitalized US military veterans. *Dig Dis Sci* 2002; 47(1):201-207. ([Abstract](#))

Buchner AM, Sonnenberg A. Factors influencing the prevalence of gallstones in liver disease: the beneficial and harmful influences of alcohol. *Am J Gastroenterol* 2002; 97(4):905-909.

[\(Abstract\)](#)

Collins TC, Johnson M, Henderson W, Khuri SF, Daley J. Lower Extremity Nontraumatic Amputation Among Veterans With Peripheral Arterial Disease: Is Race an Independent Factor? *Med Care* 2002; 40(1 Suppl):106-116. [\(Abstract\)](#)

Cowper D, Kubal J, Maynard C, Hynes D. A primer and comparative review of major u.s. Mortality databases. *Ann Epidemiol* 2002; 12(7):462. [\(Abstract\)](#)

Cucino C, Buchner AM, Sonnenberg A. Continued rightward shift of colorectal cancer. *Dis Colon Rectum* 2002; 45(8):1035-1040. [\(Abstract\)](#)

Desai MM, Rosenheck RA, Druss BG, Perlin JB. Mental disorders and quality of diabetes care in the veterans health administration. *Am J Psychiatry* 2002; 159(9):1584-1590. [\(Abstract\)](#)

Desai MM, Rosenheck RA, Druss BG, Perlin JB. Receipt of nutrition and exercise counseling among medical outpatients with psychiatric and substance use disorders. *J Gen Intern Med* 2002; 17(7):556-560. [\(Abstract\)](#)

Finalyson SR, Stroupe KT, Joseph GJ, Fisher ES. Using the Veterans Health Administration inpatient care database: trends in the use of antireflux surgery. *Eff Clin Pract* 2002; 5(3 Suppl):E5. [\(Abstract\)](#)

Murphy PA, Cowper DC, Seppala G, Stroupe KT, Hynes DM. Veterans Health Administration inpatient and outpatient care data: an overview. *Eff Clin Pract* 2002; 5(3 Suppl):E4. [\(Abstract\)](#)

Reker DM, Rosen AK, Hoenig H, Berlowitz DR, Laughlin J, Anderson L et al. The hazards of stroke case selection using administrative data. *Med Care* 2002; 40(2):96-104. [\(Abstract\)](#)

Rosen AK, Loveland SA, Anderson JJ, Hankin CS, Breckenridge JN, Berlowitz DR. Diagnostic cost groups (DCGs) and concurrent utilization among patients with substance abuse disorders. *Health Serv Res* 2002; 37(4):1079-1103. [\(Abstract\)](#)

Subramanian U, Weinberger M, Eckert GJ, L'Italien GJ, Lapuerta P, Tierney W. Geographic variation in health care utilization and outcomes in veterans with acute myocardial infarction. *J Gen Intern Med* 2002; 17(8):604-611. [\(Abstract\)](#)

### ***Year 2001***

Buchner AM, Sonnenberg A. Comorbid occurrence of liver and pancreas disease in United States military veterans. *Am J Gastroenterol* 2001; 96(7):2231-2237. [\(Abstract\)](#)

El Serag HB, Richardson PA, Everhart JE. The role of diabetes in hepatocellular carcinoma: a case-control study among United States Veterans. *Am J Gastroenterol* 2001; 96(8):2462-2467. ([Abstract](#))

Kazmers A, Perkins AJ, Jacobs LA. Aneurysm rupture is independently associated with increased late mortality in those surviving abdominal aortic aneurysm repair. *J Surg Res* 2001; 95(1):50-53. ([Abstract](#))

Rosen AK, Loveland S, Anderson JJ, Rothendler JA, Hankin CS, Rakovski CC et al. Evaluating diagnosis-based case-mix measures: how well do they apply to the VA population? *Med Care* 2001; 39(7):692-704. ([Abstract](#))

Sernyak MJ, Desai R, Stolar M, Rosenheck R. Impact of clozapine on completed suicide. *Am J Psychiatry* 2001; 158(6):931-937. ([Abstract](#))

Sernyak MJ, Rosenheck R, Desai R, Stolar M, Ripper G. Impact of clozapine prescription on inpatient resource utilization. *J Nerv Ment Dis* 2001; 189(11):766-773. ([Abstract](#))

#### ***Year 2000***

Every NR, Fihn SD, Sales AE, Keane A, Ritchie JR. Quality Enhancement Research Initiative in ischemic heart disease: a quality initiative from the Department of Veterans Affairs. QUERI IHD Executive Committee. *Med Care* 2000; 38(6 Suppl 1):I49-I59. ([Abstract](#))

Hynes DM, Cowper D, Kerr M, Kubal J, Murphy PA. Database and informatics support for QUERI: current systems and future needs. Quality Enhancement Research Initiative. *Med Care* 2000; 38(6 Suppl 1):I114-I128. ([Abstract](#))

Kazmers A, Jacobs LA, Perkins AJ. Outcomes after lower-extremity reconstruction in DRGs 478 and 479. *J Surg Res* 2000; 88(1):18-22. ([Abstract](#))

Kazmers A, Striplin D, Jacobs LA, Welsh DE, Perkins AJ. Outcomes after abdominal aortic aneurysm repair: comparison of mortality defined by centralized VA Patient Treatment File data versus hospital-based chart review. *J Surg Res* 2000; 88(1):42-46. ([Abstract](#))

Kazmers A, Perkins AJ, Jacobs LA. Major lower extremity amputation in Veterans Affairs medical centers. *Ann Vasc Surg* 2000; 14(3):216-222. ([Abstract](#))

Rosenheck RA, Banks S, Pandiani J, Hoff R. Bed closures and incarceration rates among users of Veterans Affairs mental health services. *Psychiatr Serv* 2000; 51(10):1282-1287. ([Abstract](#))

Rosenheck R. Primary care satellite clinics and improved access to general and mental health services. *Health Serv Res* 2000; 35(4):777-790. ([Abstract](#))

#### ***Year 1999***

Ashton CM, Petersen NJ, Soucek J, Menke TJ, Yu HJ, Pietz K et al. Geographic variations in utilization rates in Veterans Affairs hospitals and clinics. *N Engl J Med* 1999; 340(1):32-39. ([Abstract](#))

Ashton CM, Petersen NJ, Soucek J, Menke TJ, Pietz K, Yu HJ et al. Rates of health services utilization and survival in patients with heart failure in the Department of Veterans Affairs medical care system. *Am J Med Qual* 1999; 14(1):55-63. ([Abstract](#))

Barnett PG, Rodgers JH. Use of the Decision Support System for VA cost-effectiveness research. *Med Care* 1999; 37(4 Suppl Va):AS63-AS70. ([Abstract](#))

Cowper DC, Hynes DM, Kubal JD, Murphy PA. Using administrative databases for outcomes research: select examples from VA Health Services Research and Development. *J Med Syst* 1999; 23(3):249-259. ([Abstract](#))

Druss BG, Rosenheck RA, Stolar M. Patient satisfaction and administrative measures as indicators of the quality of mental health care. *Psychiatr Serv* 1999; 50(8):1053-1058. ([Abstract](#))

Druss BG, Rohrbach RM, Rosenheck RA. Depressive symptoms and health costs in older medical patients. *Am J Psychiatry* 1999; 156(3):477-479. ([Abstract](#))

El Serag HB, Sonnenberg A. Outcome of erosive reflux esophagitis after Nissen fundoplication. *Am J Gastroenterol* 1999; 94(7):1771-1776. ([Abstract](#))

Hoff RA, Rosenheck RA. The cost of treating substance abuse patients with and without comorbid psychiatric disorders. *Psychiatr Serv* 1999; 50(10):1309-1315. ([Abstract](#))

Hynes D, Reda D, Giobbie-Hurder A, Abdellatif M, Weinberger M, Oddone E et al. Measuring costs in multisite randomized controlled trials: lessons from the VA Cooperative Studies Program. *Med Care* 1999; 37(4 Suppl Va):AS27-AS36. ([Abstract](#))

Kazmers A, Jacobs LA, Perkins AJ. Pulmonary embolism in Veterans Affairs Medical Centers: is vena cava interruption underutilized? *Am Surg* 1999; 65(12):1171-1175. ([Abstract](#))

Menke TJ, Homan RH, Kashner TM. Determining costs in VA: research design problems and solutions illustrated with case studies. *Med Care* 1999; 37(4 Suppl Va):AS18-AS26. ([Abstract](#))

Rosenheck R, Fontana A, Stolar M. Assessing quality of care: administrative indicators and clinical outcomes in posttraumatic stress disorder. *Med Care* 1999; 37(2):180-188. ([Abstract](#))

West DA, Cummings JM, Longo WE, Virgo KS, Johnson FE, Parra RO. Role of chronic catheterization in the development of bladder cancer in patients with spinal cord injury. *Urology* 1999; 53(2):292-297. ([Abstract](#))



Wilt TJ, Cowper DC, Gammack JK, Going DR, Nugent S, Borowsky SJ. An evaluation of radical prostatectomy at Veterans Affairs Medical Centers: time trends and geographic variation in utilization and outcomes. *Med Care* 1999; 37(10):1046-1056. ([Abstract](#))

Wray NP, Petersen NJ, Soucek J, Ashton CM, Hollingsworth JC, Geraci JM. The hospital multistay rate as an indicator of quality of care. *Health Serv Res* 1999; 34(3):777-790. ([Abstract](#))

### ***Year 1998***

Ashton CM, Petersen NJ, Wray NP, Yu HJ. The Veterans Affairs medical care system: hospital and clinic utilization statistics for 1994. *Med Care* 1998; 36(6):793-803. ([Abstract](#))

Hoff RA, Rosenheck RA. Long-term patterns of service use and cost among patients with both psychiatric and substance abuse disorders. *Med Care* 1998; 36(6):835-843. ([Abstract](#))

Kashner TM. Agreement between administrative files and written medical records: a case of the Department of Veterans Affairs. *Med Care* 1998; 36(9):1324-1336. ([Abstract](#))

Kashner TM, Muller A, Richter E, Hendricks A, Lukas CV, Stubblefield DR. Private health insurance and veterans use of Veterans Affairs care. RATE Project Committee. Rate Alternative Technical Evaluation. *Med Care* 1998; 36(7):1085-1097. ([Abstract](#))

Piette JD, Barnett PG, Moos RH. First-time admissions with alcohol-related medical problems: a 10-year follow-up of a national sample of alcoholic patients. *J Stud Alcohol* 1998; 59(1):89-96. ([Abstract](#))

Pogach LM, Hawley G, Weinstock R, Sawin C, Schiebe H, Cutler F et al. Diabetes prevalence and hospital and pharmacy use in the Veterans Health Administration (1994). Use of an ambulatory care pharmacy-derived database. *Diabetes Care* 1998; 21(3):368-373. ([Abstract](#))

Rosenheck R, Seibyl CL. Homelessness: health service use and related costs. *Med Care* 1998; 36(8):1256-1264. ([Abstract](#))

Smith NL, Reiber GE, Psaty BM, Heckbert SR, Siscovick DS, Ritchie JL et al. Health outcomes associated with beta-blocker and diltiazem treatment of unstable angina. *J Am Coll Cardiol* 1998; 32( 5):1305-1311. ([Abstract](#))

### ***Year 1997***

Barnett PG, Swindle RW. Cost-effectiveness of inpatient substance abuse treatment. *Health Serv Res* 1997; 32(5):615-629. ([Abstract](#))

Barnett PG. Research without billing data. Econometric estimation of patient-specific costs. *Med Care* 1997; 35(6):553-563. ([Abstract](#))

Druss B, Rosenheck R. Evaluation of the HEDIS measure of behavioral health care quality. Health Plan Employer Data and Information Set. *Psychiatr Serv* 1997; 48(1):71-75. ([Abstract](#))

Huber TS, Durance PW, Kazmers A, Jacobs LA. Effect of the Asymptomatic Carotid Atherosclerosis Study on carotid endarterectomy in Veterans Affairs medical centers. *Arch Surg* 1997; 132(10):1134-1139. ([Abstract](#))

Mahan CM, Bullman TA, Kang HK, Selvin S. A case-control study of lung cancer among Vietnam veterans. *J Occup Environ Med* 1997; 39(8):740-747. ([Abstract](#))

Phibbs CS, Swindle RW, Recine B. Does case mix matter for substance abuse treatment? A comparison of observed and case mix-adjusted readmission rates for inpatient substance abuse treatment in the Department of Veterans Affairs. *Health Serv Res* 1997; 31(6):755-771. ([Abstract](#))

Wright SM, Daley J, Fisher ES, Thibault GE. Where do elderly veterans obtain care for acute myocardial infarction: Department of Veterans Affairs or Medicare? *Health Serv Res* 1997; 31(6):739-754. ([Abstract](#))

### ***Year 1996***

Bennett CL, Curtis JR, Achenbach C, Arno P, Bennett R, Fahs MC et al. U.S. hospital care for HIV-infected persons and the role of public, private, and Veterans Administration hospitals. *J Acquir Immune Defic Syndr Hum Retrovirol* 1996; 13(5):416-421. ([Abstract](#))

Ehreth J. The implications for information system design of how health care costs are determined. *Med Care* 1996; 34(3 Suppl):MS69-MS82. ([Abstract](#))

Moos RH, Mertens JR. Patterns of diagnoses, comorbidities, and treatment in late-middle-aged and older affective disorder patients: comparison of mental health and medical sectors. *J Am Geriatr Soc* 1996; 44(6):682-688. ([Abstract](#))

Moos RH, King MJ, Patterson MA. Outcomes of residential treatment of substance abuse in hospital- and community-based programs. *Psychiatr Serv* 1996; 47(1):68-74. ([Abstract](#))

Piette JD, Moos RH. The influence of distance on ambulatory care use, death, and readmission following a myocardial infarction. *Health Serv Res* 1996; 31(5):573-591. ([Abstract](#))

Rubenstein LV, Yano EM, Fink A, Lanto AB, Simon B, Graham M et al. Evaluation of the VA's Pilot Program in Institutional Reorganization toward Primary and Ambulatory Care: Part I, Changes in process and outcomes of care. *Acad Med* 1996; 71(7):772-783. ([Abstract](#))

Smith ME, Sheldon G, Klein RE, Feild T, Feitz R, Stockford D et al. Data and information requirements for determining veterans' access to health care. *Med Care* 1996; 34(3 Suppl):MS45-MS54. ([Abstract](#))

#### ***Year 1995***

Anderson BA, Howard MO, Walker RD, Suchinsky RT. Characteristics of substance-abusing veterans attempting suicide: a national study. *Psychol Rep* 1995; 77(3 Pt 2):1231-1242. ([Abstract](#))

Fedele DJ, Adelson R, Niessen LC, Harrison K. Oral cavity and pharyngeal cancer among Department of Veterans Affairs hospital discharges. *J Public Health Dent* 1995; 55(3):143-147. ([Abstract](#))

Rosenheck R, Neale M, Leaf P, Milstein R, Frisman L. Multisite experimental cost study of intensive psychiatric community care. *Schizophr Bull* 1995; 21(1):129-140. ([Abstract](#))

#### ***Year 1994***

Bunn JY, Booth BM, Cook CA, Blow FC, Fortney JC. The relationship between mortality and intensity of inpatient alcoholism treatment. *Am J Public Health* 1994; 84(2):211-214. ([Abstract](#))

Halpern NA, Bettes L, Greenstein R. Federal and nationwide intensive care units and healthcare costs: 1986-1992. *Crit Care Med* 1994; 22(12):2001-2007. ([Abstract](#))

Pankratz L, Jackson J. Habitually wandering patients. *N Engl J Med* 1994; 331(26):1752-1755. ([Abstract](#))

Walker RD, Howard MO, Lambert MD, Suchinsky R. Psychiatric and medical comorbidities of veterans with substance use disorders. *Hosp Community Psychiatry* 1994; 45(3):232-237. ([Abstract](#))

Weaver FM, Burdi MD, Pinzur MS. Outpatient foot care: correlation to amputation level. *Foot Ankle Int* 1994; 15(9):498-501. ([Abstract](#))

#### ***Year 1993***

Rosenheck R, Gallup P, Frisman LK. Health care utilization and costs after entry into an outreach program for homeless mentally ill veterans. *Hosp Community Psychiatry* 1993; 44(12):1166-1171. ([Abstract](#))

Weiss TW, Ashton CM, Wray NP. Forecasting areawide hospital utilization: a comparison of five univariate time series techniques. *Health Serv Manage Res* 1993; 6(3):178-190. ([Abstract](#))

### ***Year 1992***

Booth BM, Cook CA, Blow FC, Bunn JY. Utilization of outpatient mental health services after inpatient alcoholism treatment. *J Ment Health Adm* 1992; 19(1):21-30. ([Abstract](#))

### ***Year 1991***

Sonnenberg A, Wasserman IH. Epidemiology of inflammatory bowel disease among U.S. military veterans. *Gastroenterology* 1991; 101(1):122-130. ([Abstract](#))

### ***Year 1990***

Booth BM, Yates WR, Petty F, Brown K. Longitudinal characteristics of hospital use before and after alcoholism treatment. *Am J Drug Alcohol Abuse* 1990; 16(1-2):161-170. ([Abstract](#))

### ***Year 1988***

Ashcraft ML, Fries BE, Nerenz DR, Falcon SP, Srivastava SV, Lee CZ et al. A psychiatric patient classification system. An alternative to diagnosis-related groups. *Med Care* 1989; 27(5):543-557. ([Abstract](#))

### ***Year 1983***

Stripling T, Fonseca JE, Tsou V, Copperthite A. A demographic study of spinal cord injured veterans. *J Am Paraplegia Soc* 1983; 6(3):62-66. ([Abstract](#))

### ***Year 1981***

Hornbrook MC. Economic incentives and control: some issues for research in the VA hospital system. *J Med Syst* 1981; 5(1-2):69-96. ([Abstract](#))